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THE UNIVERSITY RECORDS SERIES 9, No. 1

CORNELL UNIVERSITY

THE

PRESIDENT'S REPORT

1907-1908

ITHACA, NEW YORK
PUBLISHED BY THE UNIVERSITY
NOVEMBER, 1908
BI-MONTHLY

[Entered at the Post Office at Ithaca, N. Y., as second-class matter.]

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CORNELL UNIVERSITY

SIXTEENTH ANNUAL REPORT

OF

PRESIDENT SCHURMAN

1907 - 1908

WITH APPENDICES CONTAINING REPORTS OF THE DEANS
OF FACULTIES, DIRECTORS OF COLLEGES, THE
REGISTRAR, LIBRARIAN AND
OTHER OFFICERS

ITHACA, NEW YORK
PUBLISHED BY THE UNIVERSITY
NOVEMBER, 1908

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PRESIDENT'S REPORT

FOR 1907–1908

To the Board of Trustees:

The President of the University has the honor to submit to the Board of Trustees the following Report for the year 1907–1908. The Report covers the period from September 30th, 1907, to September 30th, 1908.

FORTIETH ANNIVERSARY CELEBRATION

At the close of the academic year 1907–1908 forty years had elapsed since the University first opened its doors in 1868 and the event was appropriately celebrated during Commencement Week by a general reunion of all Cornellians. In response to the call sent out by the committee in charge, it is estimated that about 2,000 alumni and former students returned to Ithaca to renew old associations and to commemorate the remarkable achievements wrought by their Alma Mater in the comparatively short time since she first took her place in the sisterhood of American universities. The formal exercises were held in the quadrangle immediately in front of Goldwin Smith Hall. They consisted of addresses by the first President of the University, by President Schurman and by Judge Frank H. Hiscock of the class of 1875. For the success of this reunion and celebration great credit is due to Mr. Charles E. Treman, '89, chairman of the committee in charge.

In connection with the celebration of the Fortieth Anniversary of the Foundation of the University should be mentioned the preparation of the 1908 Ten Year Book, being the fourth volume in the series of Ten Year Books. It contains the names of all students and officers of the University from 1868 to 1908. The names of the students are given in alphabetical order, followed in each case by the student's date of entering and the date of leaving the University, the course pursued, and the degree taken (if any) and the date thereof, with his present address and occupation. This is followed by a geographical index in which the distribution of all former Cornell students throughout the United States and foreign countries in their alphabetical order it shown. The volume also contains a list of graduates given in the order of graduation with the grouping followed in the programme of the annual commencements. For the first time the Ten Year Book also contains a list of all persons who have attended the Summer Session and the Short Winter Courses.

This volume will be of great value to the University and to all its graduates and former students. It contains about 26,000 names. The preparation of it has entailed prodigious amount of work, which has fallen upon Mr. David F. Hoy, the Registrar of the University, Chairman of the Committee of the Alumni appointed by the Board of Trustees to prepare the volume. As Mr. Hoy's time was already fully occupied by the work of the Registrar's office, the assumption of these additional duties imposed upon him a burden which few men could have carried. And both for the excellent volume he has produced and the extraordinary labors he has performed in producing it he deserves the profound appreciation and gratitude of the University and of all its graduates and former students.

TRUSTEES AND FACULTIES

The year was one of unusual mortality in the Board of Trustees. On the 2nd of October, Mr. Samuel Dumont Halliday passed away after an illness of many months. He was chairman of the Executive Committee and a member of the Finance Committee as well as University Attorney. He was a man of massive common sense, great sagacity and rich knowledge of men and affairs, and he justly exercised a large influence in the deliberations of the Board. Another active Trustee was lost to the Board by the death of Mr. George Russel Williams, which occurred on the 2nd of December. Mr. Williams had long been Chairman of the Finance Committee. Charged more than any other Trustee with the responsibility of investing the funds of the University, the record of his administration of this great trust is a high and lasting tribute to his wide knowledge, sane judgment, conservative temperament and unselfish devotion to the welfare of the University. Before the community had recovered from the gloom of these two bereavements, of which previous illness had given some warning, it was shocked on the morning of the 22nd of January by the announcement of the sudden death of Mr. Franklin C. Cornell. A son of the Founder of the University, he had been a member of the Board of Trustees since 1895, and during the great material expansion of the University in the last decade he had been Chairman of the Committee on Grounds. His foresight, his sound judgment, his tenacity of purpose, his knowledge of practical affairs and his business training rendered him an unusually valuable and helpful Trustee. Mr. Cornell, Mr. Halliday and Mr. Williams were all residents of Ithaca, where they are mourned as kind friends, good neighbors and public-spirited citizens. Their departure inflicts on the business administration of Cornell University a severe loss which is keenly felt by the Board of Trustees and especially by the Executive Committee.

The deaths already mentioned left three important vacancies in the standing committees of the Board of Trustees, which have been filled in accordance with the recommendations of a special committee. Mr. R. B. Williams succeeds his brother, the late Mr. George R. Williams, in the important position of chairman of the Finance Committee, to which Mr. Van Cleef and Mr. R. H. Treman were also added; Mr. Newman goes on the Committees on Appropriations and Auditing; Mr. C. E. Treman on the Committees on Grounds and Auditing; Mr. Blood takes Mr. Cornell's place as chairman of the Committee on Grounds; and Mr. Van Cleef succeeds Mr. Halliday as University Attorney. The Standing Committees as now constituted are as follows: (1) Committee on Buildings: R. H. Treman, Chairman, the President, the Treasurer, R. B. Williams; (2) Committee on Grounds: C. H. Blood, Chairman, the President, C. E. Treman; (3) Finance Committee: R. B. Williams, Chairman, H. B. Lord, the President, M. Van Cleef, R. H. Treman; (4) Committee on Appropriations: The President, Chairman, H. B. Lord, J. T. Newman; (5) Auditing Committee: H. B. Lord, Chairman, J. T. Newman, C. E. Treman.

All the members of these committees are residents of Ithaca. It was, however, voted by the Board that at a subsequent meeting, Trustees who live outside of Ithaca should be appointed as additional members. In these days of telephones out-of-town Trustees may be consulted quickly when they are not able to come to Ithaca to attend meetings of the committees. And the University needs the counsel and attention of all the Trustees, and not merely of those who happen to reside in Ithaca.

In June the terms of Trustees R. B. Williams and H. H. Westinghouse expired and they were re-elected to succeed themselves. One of the vacancies in the Board was filled by the election of Mr. Emerson McMillan of New York City. Judge H. L. Taylor was elected by the alumni to succeed himself as Trustee and Judge A. H. Sewell was elected to fill the remaining vacant alumni trusteeship.

In the Faculty the sudden death by pneumonia on December 22, 1907, of Dr. Henry Patterson Loomis, who had filled with success the chair of materia medica, therapeutics and clinical medicine in the Medical College in New York City since the opening of that College in 1898, brought regret and sorrow to his colleagues and a sense of loss to the College.

Dr. James Law retired from active service at the end of the academic year 1907–1908, and was immediately elected professor of the principles and practice of veterinary medicine, emeritus. He will enjoy for life a pension which is furnished to Cornell University by the Carnegie Foundation for the Advancement of Teaching. And few cases show more strikingly the value and the wisdom of Mr. Carnegie's professorial pension fund. For Dr. Law came to Cornell University at its opening in 1868 and has given it forty years of continuous service, and that service has been of extraordinary value and of wide fruitfulness both within and without the University. Dr. Law has trained many of the leaders in veterinary science, he has helped to raise the rank and estimation of the veterinary profession, he has elevated the standards of veterinary education in New York and elsewhere, he has contributed by his investigations to the advancement of the science of veterinary medicine, and as a veterinary practitioner he has aided the

Government in stamping out contagions that threatened vast injury to the live-stock interests of the country. At Cornell University he has built up a College of Veterinary Medicine which, thanks to the wise generosity of the State of New York, it has been possible to make the pride of the profession in this and other states. Happily it will still enjoy the advantage of Dr. Law's sympathy, interest and advice, while he devotes himself, unhampered by administrative or educational duties, to the congenial work of research in the promising field of veterinary medicine.

Professor Simon Henry Gage, in the full and energetic activity of middle life, retired from his professorship at Commencement in order that he might devote his entire time to investigation in embryology and histology, which in the past he has so successfully cultivated while performing also his duties as a teacher. His devotion to research involved a large pecuniary sacrifice, for the service pension which the Carnegie Foundation for the Advancement of Teaching allowed the University for Professor Gage was only about half the professorial salary he surrendered. This is a case which emphasizes acutely the need of endowments for research, of which at present the University has none. As a purely temporary arrangement the Trustees voted a substantial though inadequate subsidy in augmentation of Professor Gage's retiring allowance, while providing him also with laboratory rooms, equipment and a small allowance for assistance. And Professor Gage will remain on the Faculty as an exemplar of disinterested devotion to truth, engaged in the enlargement of human knowledge. Unfortunately undergraduates will lose the pedagogical skill, the enthusiasm, the unwearied labors and the stores of knowledge growing by incessant learning, which Professor Gage has lavished on successive classes for many years.

The following professors are now in receipt of pensions from the University, the funds being provided by the Carnegie Foundation for the Advancement of Teaching:

Name	Date of Appointment
Hiram Corson	1906
Isaac Phillips Roberts	1906
Charles Mellen Tyler	1906
Austin Flint	1906
James Morgan Hart	1907
George William Jones	1907
Simon Henry Gage	1908
James Law	1908

Apart from retirement on pensions there were during the year two resignations which should be mentioned. Professor A. Ross Hill, who (as he states in his letter of resignation) "came here last year with the most definite intention of devoting the rest of my life to the service of Cornell," was called back to Missouri to take the presidency of the University. Though this promotion interrupted prematurely the work Dr. Hill had begun at Cornell, the academic community had time to appreciate at least its beginnings and to become acquainted with the admirable qualities, personal, scholastic and administrative, which Dr. Hill possessed and which (as his colleagues feel) promise him marked success in his new and honorable position in the University of Missouri.

For the other resignation the Governor of the State is responsible. In April he appointed Professor R. A. Pearson State Commissioner of Agriculture. The University ideal of service to the State, its actual relations to the educational work of the State, the support of the College of Agriculture by the State, all conspired to smooth the way for Professor Pearson's acceptance of this appointment. Undoubtedly he has an opportunity of rendering great service to the agricultural interests of the State. Nevertheless his withdrawal from the College of Agriculture is a very serious loss; for in the large and important department of dairy industry he was not only the nominal head but the actual moving force and directing spirit and in the Faculty he was an influential and most helpful member.

The following new appointments to professorships were made during the year:

DAVID ALBERT MOLITOR was appointed professor of topographic and geodetic engineering. Born in 1866, Mr. Molitor received his early education in the schools of Detroit and St. Louis and in 1883 he entered Washington University where he pursued the civil engineering courses for four years. In May, 1887, he went to Europe and there received an appointment from the German Government as engineer on the construction of the strategic railway, Weizen-Immendingen, in the Grand Duchy of Baden. On the completion of this railroad in 1890 and after four months of travel in Europe and England he returned to America and accepted a position as assistant engineer on the construction of the Mississippi River bridge at Memphis. During the period 1892--1898 Mr. Molitor, as a member of the engineering department of the United States Army, was in charge of important works connected with the improvement of the rivers and harbors of the great lakes and the following year he directed a party on precise spirit leveling for the United States Board of Engineers on Deep Waterways. At the end of 1899 he left the government service to engage in business but in 1906, when it was decided to build a lock canal across the Isthmus of Panama, he accepted a position with the Isthmian Canal Commission on the design of the great locks. Mr. Molitor is a member of the American Society of Civil Engineers, the American Association for the Advancement of Science, the National Geographic Society, and the Society for the Promotion of Engineering Education, and he is well-known as a writer on engineering subjects.

Ervin Louis Phillips was appointed professor of military science and tactics. Mr. Phillips graduated from Cornell University with the degree of A.B. in 1891 and was soon after commissioned Second Lieutenant of Cavalry in the United States Army and assigned to the Sixth Regiment. In 1893, after two years of service in the west, he entered the United States Infantry and Cavalry School for Officers at Fort Leavenworth, Kansas, graduating in 1895. He then spent six months in travel abroad and later upon his return to Kansas, he acted as secretary and treasurer of the United States Cavalry Association for two years. Mr. Phillip's war service began in 1898 and included both the Spanish War and the Philippine Insurrection. He has since served a second tour of duty in the Philippines covering two years, and since 1905 has been engaged in cavalry work at Fort Myer, Va. In July, 1898, he was raised to the rank of First Lieutenant and in 1901 he received a further promotion to a captaincy, since which time he has been with the Thirteenth Regiment.

Sutherland Simpson was appointed professor of physiology in the Ithaca Division of the Medical College. Born in 1863 in the Orkney Islands, Scotland, Mr. Simpson took his bachelor's degree in science at the University of Edinburgh in 1894. The following year he began the study of medicine at Edinburgh and in 1899 he obtained the additional degrees of Bachelor of Medicine and Bachelor of Surgery. He was then appointed assistant in physiology to Professor Schäfer at the University of Edinburgh and in 1902 he was made lecturer in experimental physiology, having in the meantime taken the degree of Doctor of Medicine in 1901, which he later supplemented by the degree of Doctor of Science in 1903. Professor Simpson is a member of the English Physiological Society and of the British Medical Association and has published numerous original contributions to the literature of physiology.

Andrew Hunter was appointed assistant professor of biochemistry. A native of Edinburgh, where he was born in 1876, Mr. Hunter studied at the University of Edinburgh from 1892 to 1901, receiving the degree of M.A. in 1895, B. Sc. (summa cum laude) in 1899, and M.B. and Ch. B. in 1901. During 1901–1902 he was house physician at the Edinburgh Royal Infirmary and later became assistant to the professor of physiology at the University of Edinburgh. From 1905 to 1908 he was engaged in biochemical researches as Carnegie Research Fellow in the Universities of Berlin, Heidelberg and Edinburgh, and he comes to his present position from the University of Leeds, where he has been serving as demonstrator of physiology. Professor Hunter is a member of the English Physiological Society and besides being the author of various papers on biochemical subjects he has since 1906 acted as one of the reviewers on the staff of the *Zentralblatt f. d. gesamte Physiologie u. Pathologie des Stoffwechsels.*

The number of members of the instructing staff is as follows:

	At Ithaca	In New York	Total
Emeritus Professors	7	1	8
Professors	75	9	84
Clinical Professors	–	21	21
Assistant Professors	64	3	67
Lecturers	6	2	8
Instructors	122	47	169
Assistants	144	47	191
	418	130	548

During the forty years of the existence of the University the instructing staff, excluding the Medical College in New

York City which was founded in 1898, by decades has been as follows:

Year	Emeritus Professors	Professors	Assct. Profs.	Asst. Profs.	Lects.	Insts.	Assts.
1868–1869	–	19	–	4	–	–	3
1878–1879	–	25	1	13	1	9	–
1888–1889	2	33	4	13	–	41	4
1898–1899	4	53	2	31	5	84	80
1907–1908	7	75	–	64	6	122	144

These figures show an undue increase in the proportion of instructors and assistants to the teachers of professorial rank. In other Reports attention has also been called to the fact that professorial salaries have not advanced with the increase in the cost of living. This replenishment of the ranks of the instructing staff with junior teachers on small salaries and the failure to provide suitable salaries for the men of professorial rank, are menacing the dignity, importance and attractiveness of the teaching profession in America. If intellect is to be well-trained in America there must be tangible evidence that the public set a fair value on highly educated men. Otherwise the best brains of the country will be lost to the teaching profession. As Burke has well said, "the degree of estimation in which any profession is held becomes the standard of the estimation in which the professors hold themselves." Hence it is scarcely an exaggeration to assert that the provision in Colonel Vilas' magnificent bequest to the University of Wisconsin for the establishment of certain professorships with salary of not less than $8,000 each, will, if it becomes at once effective, mark an epoch in the development of a proper standard for the estimation of professors in the United States.

The problem of securing men of the highest character, ability, and training to fill professorial vacancies is at best a difficult one. Cornell has never limited itself to the graduates of the University, to the State in which it is located, or even to America. Two years ago a gentleman in France was appointed to a professorship; this year Leeds University, England, and Edinburgh University, Scotland, have furnished two professors. The effect of this policy of selecting professors without any restrictions upon the field of choice was described by *The Evening Post*, in an editorial on that subject in its issue of March 13th, as follows:

> "In the East, Cornell and Johns Hopkins, comparatively new institutions, have been similarly free and untrammelled in their choice; and this policy of taking their own wherever they could find it has been one great cause of the rapid progress of these two Eastern institutions."

EDUCATIONAL LEGISLATION

During the year both the University Faculty and the Faculties of the separate Colleges have given much consideration to educational problems which were pressing for solution. One after another was the subject of prolonged deliberation and discussion, first in committee and afterwards in special Faculty meetings. Detailed and interesting accounts will be found in the reports of the Deans, especially in the report of the Dean of the University Faculty (Appendix II) and the report of the Dean of the Faculty of Arts and Sciences (Appendix III). Here there is space only to summarize results.

(1) In the first place, the requirements for admission to all the Colleges have been revised and, with slight deviations, made uniform throughout the University (except in the Medical College in New York City, which in and after September, 1908, is to admit only graduates in arts or science or others of equivalent education). This revision had become imperative for several reasons. One of them, though not intrinsically the most important, was that the published

requirements for admission were lower than the demands made upon the great majority of matriculants in consequence of the restrictions under which certificates of admission were received by the University or granted by the Regents or other accrediting authorities. A more substantial consideration was that the existing formulation of entrance requirements lacked the flexibility necessary for correlation with the courses as now generally arranged in the public high schools, especially of the State of New York and in the west, and as a result of this rigid prescription a candidate for admission not infrequently found himself unable to secure credit for solid work on which he had spent two or three years as a pupil in the high school. Furthermore, while the educational validity and efficacy of the existing entrance requirements were not disputed, it was believed that a different grouping would not be inferior in this respect while in other respects it was decidedly preferable. And, lastly, it was thought better that the unit in terms of which the entrance requirements are defined should be that which in recent years has come into general use throughout the country, namely, "the equivalent of a course pursued throughout one year in a secondary school with five recitations a week." These and other considerations led to the action finally taken by the Faculties of the different Colleges. Fifteen units are prescribed for admission and, in the College or Arts and Sciences (which may be regarded as typical), these are defined as follows: English, 3 units; history, 1 unit; algebra, 1 unit; geometry, 1 unit; foreign languages, 4 units; elective, 5 units (these "elective" units to be taken from a list of subjects which includes, in prescribed quantities or units, physical science, additional mathematics, additional foreign languages, etc.) In the Colleges of Engineering and the College of Architecture, also, fifteen units are prescribed but here the number of foreign language units is reduced to three and it is specified that these three units shall be in either French or German, while the number of elective units is also reduced to four, thus leaving two units to be designated in higher mathematics, the total result being as follows: English, 3 units; history, 1 unit; elementary algebra, 1½ units; plane geometry, 1 unit; solid geometry, ½ unit; advanced algebra, ½ unit; plane trigonometry, ½ unit; French, 3 units, or German, 3 units; elective, 4 units. The Faculties have still further recommended that the student take at least three of the four elective units in language and history.

(2) Secondly, the University accepted the invitation of the committee of the Association of Colleges and Preparatory Schools of the Middle States and Maryland to participate in the organization of a "College Entrance Certificate Board." A meeting of delegates was held at Philadelphia on May 9th, at which Dean Crane represented Cornell University, when definite action was taken. If the committee's report is adopted by the Association the matter will then be referred to the institutions embraced in that organization for their acceptance. Meanwhile it is proper to say that there are already similar organizations in New England and in the states of the middle west. The object is to provide a general scheme for the admission to college by means of school certificates. It does not involve either advocacy of that system or opposition to it, but merely impartiality and effectiveness in its administration in the case of those institutions which have adopted it. As Dean Crane points out, the objection to admission by certificate so far as Cornell University is concerned has not been on account of the scholarship of the students admitted by certificate, but almost exclusively on the ground of the difficulty of administering the system. This will be removed when schools are placed upon the accredited list and removed from it,

not by the University but by a general board representing the Association of Colleges and Preparatory Schools of the Middle States and Maryland, which board will also prescribe the form of certificate and the rules and regulations for its use.

Students from New York State are admitted on certain Regents' credentials. These have been simplified by the issuance by the State Education Department of a new 'College Entrance Diploma." The requirements of this diploma correspond very closely to the new requirements for admission to the University, which have already been described, and in December the Faculty voted to accept this State "College Entrance Diploma" in lieu of those requirements for matriculation.

(3) Another piece of important legislation which is likely to have large, beneficent and far-reaching results, not only for the College of Arts and Sciences (which alone was immediately concerned), but for all the Colleges of the University, was effected by the joint action of the Trustees and the Faculty of Arts and Sciences.

A scheme of education which permits students to elect their own studies, whatever its advantages, is at any rate attended with great risks, especially for the younger and inexperienced undergraduates. The modification of this system which Cornell University has found it wise and expedient to adopt in the interest of Arts students has been described in previous Reports. A considerable portion of the work of freshmen and sophomores is, within certain limits, now prescribed. But the care and supervision of these underclassmen has hitherto remained in the hands of the entire Faculty of Arts and Sciences, a body of thirty-seven professors, thirty-three assistant professors, forty-three instructors, and sixty-six assistants, of whom only a small fraction had anything whatever to do with the instruction of freshmen and sophomores in Arts. The principal work of many of the departments lay with juniors, seniors and graduates, while the large departments of mathematics, physics and chemistry gave ten times as much instruction to students in technical and other courses as they gave to freshmen and sophomores in Arts. An exhaustive study made by the President, and submitted to the Trustees and the Faculty, demonstrated that three fourths of all the registrations (1,444 out of 2,002) of freshmen and sophomores were found in twenty-eight courses whose minimum enrollment was twenty. And the conclusion was drawn that the teachers of these courses (with some variations for special reasons, like recognized interest in "college" work and "college" students) constituted the natural Faculty group for the care and instruction of freshmen and sophomores. After prolonged and thorough discussion this policy was adopted by the University, the President being authorized to name the Faculty group of teachers who, under the chairmanship of Dean Hull, should constitute the new organization. The group was designated an Administrative Board in Charge of Freshmen and Sophomores, and the members, as appointed, were the following: Dean Hull, chairman, Mr. Adams, Professor Bristol, Professor Browne, Professor Catterall, Professor Creighton, Professor Faust, Mr. Gordon, Mr. Ibershoff, Professor Olmstead, Professor Prescott, Professor Reed, Professor Sampson, Professor Shearer, Professor Tanner, Professor Tarr, and Professor Durham, secretary. It will be observed that while the Board consists of seventeen members fourteen are of professorial rank. This Board is put in charge of freshmen and sophomores and granted "full power to supervise their work and to provide means for making it effective," and for the accomplishment of that end it is "empowered to make such rules, regulations and arrangements as they may deem expedient."

This important legislation was enacted by the Trustees and the Faculty of Arts and Sciences on the recommendation of a joint committee. The initiative was taken by the Trustees by the adoption of a resolution early in February, which was communicated to the Faculty. The preamble to that resolution contains the following paragraph, which describes both the basis of the reform which has been adopted and the expectations which are cherished in regard to its results:

> "Among the best of our colleges and universities the great break in the course of a collegiate or liberal education comes at the end of the second year, both as regards the curriculum and the methods of instruction. This differentiation of the work, methods of instruction, and educational aims of the first two years of the course in the College of Arts and Sciences in contrast with those of the later years of that course calls for a corresponding differentiation in the staff of instruction, which could not fail to insure greater thoroughness of instruction, greater simplicity and effectiveness of administration, and closer personal and social intercourse between teachers and students."

(4) Fourthly, the mutual relation of Arts and professional courses was the subject of serious, prolonged, and varied consideration in the Faculties of several Colleges of the University and also in the Board of Trustees. The question was discussed in its different ramifications and with considerable detail in the President's Report for 1906–1907. Here it will suffice to report the progress made during the year 1907–1908. And the most salient change in the situation is the decision to require, in and after September, 1908, a college degree in arts or science for admission to the Cornell University Medical College in New York City,—this degree to cover a minimum of a year's work in each of chemistry, physics and biology. The Faculty of Law favor the requirement of a year, and in the near future of two years, of Arts work for admission to the course in Law, and the Trustees have this proposal under consideration at the present time. The Faculties of Engineering have drawn up five year

courses, as alternatives to the present four year courses (which they desire to retain), in which are included over seventy hours in Arts and Sciences and at least thirty hours in literary and historical studies, the students in these five year courses to register for the first two years in the College of Arts and Sciences and for the remaining three in one of the Colleges of Engineering; and these plans have been referred by the Board of Trustees to the Faculty of Arts and Sciences with the request that the Faculty consider the matter and report back their recommendations to the Board. Finally, courses suitable for students in preparation for the vocations of teaching, organized philanthropy, the civil service, and business management were arranged by the Faculty of Arts and Sciences for the benefit of juniors and seniors in that College and these groups of studies will hereafter be included in the list of electives.

(5) Fifthly, besides making the foregoing provisions for matriculants, for freshmen and sophomores, for upper-classmen, and for professional students, the Faculty have also carefully considered the interests of graduate students. So far as instruction is concerned these students are now in charge of small committees composed of the professors under whom they take their major and minor subjects. It is believed that no improvement on this plan is possible, for it facilitates and encourages free and healthy intercourse between student and teacher, who are kept in constant touch by a common interest in research. It is indeed possible that in their laudable anxiety to maintain high standards the Faculty have insisted on too great rigidity in the rules governing the admission of students to the Graduate Department, and there are some professors who believe that Cornell undergraduates who have already specialized in some field with success should be admitted to graduate standing at the beginning or middle of their senior year. This is a matter which is likely to come up for consideration

at a later date. In the meantime there is a general feeling that efficiency of administration would be promoted by a reorganization of the Graduate Department in such a way as to concentrate responsibility for the work of the Department in the hands of the professors who are actively engaged in instructing graduate students. A Committee, of which Dean Crane was chairman, has reported to the Faculty in favor of this change, and the Faculty informally adopted the principle with the understanding that the matter should be brought up again for settlement at the beginning of the next University year.

STUDENTS

The number of different persons who received instruction in the University in the year 1907–1908 was 4,465. This is an increase of 240 over the enrollment for the preceding year, when the figures were 4,225, and an increase of more than 1,000 over the enrollment of four years ago (1903–1904), when the figures were 3,423.

The distribution of these students among the different courses is shown by the following table, which gives the corresponding figures for the preceding years since the year 1904-1905:

Year	Graduate Department	Arts and Sciences	Law	Medicine		Veterinary Medicine	Agriculture	Architecture	Civil Engineering	Mechanical Engineering	Summer Session	Winter Course in Agriculture	Names counted twice	Total
				Ithaca	New York									
1904–1905	211	684	228	90	316	110	189	68	385	1060	619	199	318	3841
1905–1906	232	705	222	59	335	88	230	81	425	1096	642	248	241	4122
1906–1907	239	748	211	63	285	86	278	82	466	1081	755	244	297	4225
1907–1908	249	820	206	63	257	82	348	100	511	1127	841	270	378	4465

The records of Cornell University always carefully distinguish between students who, having passed the examinations for admission, pursue courses leading to degrees, and attendants in short or special courses who enter without examination. Of these latter there are two groups, the Summer Session and the Winter School in Agriculture. Both are excluded from the following table, which takes account only of students regularly enrolled in courses leading to degrees during the academic year from September to June:

Year	Graduate Department	Arts and Sciences	Law	Medicine	Veterinary Medicine	Agriculture	Architecture	Civil Engineering	Mechanical and Electrical Engineering	Total exc. duplicates
1904–1905	211	684	228	406	110	189	68	385	1060	3318
1905–1906	232	705	222	394	88	230	81	425	1096	3461
1906–1907	239	748	211	348	86	278	82	466	1081	3523
1907–1908	249	820	206	320	82	348	100	511	1127	3734

This table shows that the attendance of regularly enrolled students in 1907–1908 was 3,734. The increase over the attendance of the preceding year was 211. While most of the Colleges of the University exhibit gains, none has gained so much as the College of Arts and Sciences which shows an increase of seventy-two over the attendance of 1906–1907. Then comes the College of Agriculture with an increase of seventy, the College of Civil Engineering with an increase of fifty-five, the Sibley College of Mechanical Engineering and Mechanic Arts with an increase of forty-six, and the College of Architecture with an increase of eighteen (in virtue of which its enrollment for the first time touches the 100-mark), and the Graduate Department with an increase of ten. Of the 320 students registered in Medicine sixty-three were in Ithaca and 257 in the Medical College in New York City.

Of these 3,734 regularly enrolled students 3,331 were men and 403 women. And of those 403 women 313 were pursuing studies in the Arts and Sciences, thirty-four in Agriculture, twenty-four in Medicine, and four in Architecture, while thirty-eight were engaged in specialized work and investigation in the Graduate Department.

A little more than half (2,025) of these 3,734 regular students came from New York State. From Pennsylvania came 322, New Jersey, 190, Ohio, 155, Illinois, 108, and Massachusetts, 101, while 690 came from forty-five other states and territories of the United States (including Porto Rico, Hawaii and the Philippine Islands) and 143 from twenty-eight different foreign countries, (including China, 28, Cuba, 14, Argentine Republic, 14, Canada, 12, India, 11, Japan, 11, Mexico, 7, Brazil, 7, Peru, 6, England, 4, Australia, 3, Switzerland, 3, etc.)

Coming as Cornell students do from so many different states and countries, it is not surprising that many of them should have partially or wholly completed a college course before coming to Ithaca. In the Graduate Department there are 249 college graduates and 219 other college graduates are enrolled as undergraduates in the professional or liberal courses. But in addition to these graduates Cornell draws a large and increasing number of undergraduates from other colleges and universities. The number of new students—college graduates and undergraduates—admitted to advanced undergraduate standing in 1907–1908 was 225. Ten years earlier (in 1897–1898) the number was 108. The work done by these students who come from other colleges and universities to Cornell is indicated by the following exhibit for 1897–1898 and 1907–1908:

YEAR	Arts and Sciences	Agri-culture	Archi-tecture	Civil Engineering	Mechanical Engineering	Law	Veterinary Medicine	Total
1897–1898	24	9	2	15	41	15	1	108
1907–1908	43	22	10	60	79	11	0	225

The entire number of students who have been enrolled in the University since it opened in 1868 is approximately 26,000.

The number of degrees conferred in 1907-1908 was 715, of which 649 were first degrees and sixty-six advanced degrees.

In the forty years that have elapsed since the opening of the University 10,475 degrees have been conferred, of which 9,451 were first degrees and 1,024 advanced degrees. Of these 10,475 degrees about one tenth (1,028 first and seventy-two advanced) were granted during the administration of President White, who resigned in 1885. Or, putting the matter in another form, the University conferred in 1908 almost two thirds as many degrees as it conferred during the entire period of President White's administration from 1868 to 1885.

It has been stated that 4,465 persons attended the University in 1907–1908 and that the number of regularly enrolled students was 3,734. This academic community of thousands of young men is almost entirely self-governing, and few things are more admirable in themselves or more encouraging for the future of the republic than the exemplary manner in which they conduct themselves. Now as always Cornell University is a place for hard work, and no indolent or dissolute student could for any length of time maintain the standing demanded of him. Nevertheless occasional cases of drunkenness or vice do occur which bring disgrace on this studious, temperate and moral community. The policy of the University in such cases, whenever they become known, is to appeal to the delinquent's sense of honor, right and filial obligation, to warn him of the consequences of a repetition of the offence, and, when neither appeal nor warning is of any avail, to remove the offender from the University. But oftener than not the offence may not come to the cognizance of the authorities of the University. The only remedy for such cases is the maintenance of a high standard of public opinion in the student body, and to that end public addresses and appeals are on ordinary occasions of less value than informal expressions of opinion in and by groups of men—classes, societies, fraternities and the like--which in time would pervade and leaven the entire academic community. And there is one definite evil for the removal of which the President appeals to the senior class of 1908–1909. The senior banquet is entirely a senior affair. It has now become a disgrace to the University. For their own sakes and for the good name of the University the President appeals to the seniors either to abolish or completely reform this demoralizing celebration.

HALLS OF RESIDENCE

On the physical, economic and social sides the University has done far too little for the thousands of young men who come to it for instruction. Elsewhere in this report the President has described in some detail the provisions which have been made for the young women who reside in Sage College and Sage Cottage, and aside from the fact that even these buildings cannot accommodate more than half of the women enrolled, the Trustees may well feel that in this respect they have left little to be desired. But a vastly larger number of young men—indeed all except the comparatively few whom the fraternities house—are still compelled to find room and board where they can about the city and for the most part in boarding and lodging houses built and operated by private individuals with a view single to the income which they derive therefrom.

Over these private establishments the University can obviously exercise no control or supervision whatever, thus losing one of the most effective means of safeguarding the health and the social, moral and physical well-being of the undergraduate body, while the disadvantages from an educational and even disciplinary standpoint arising from the fact that so large a majority of the students are so widely scattered under so many different roofs, are at once appreciable when it is considered what effective forces would be at work for the promotion of healthy social intercourse, solidarity, and the crystallization of student public opinion, were all these young men brought together under common roofs and at common tables.

But it is not merely a social question, nor even an educational question alone. The rapid growth of the student body, a growth which has far exceeded the extension of student lodging facilities in the city—and as this report goes to press the President is in receipt of figures indicating a large increase in the registration for the coming year—has created an economic problem of the gravest consequence and one which strikes at the very root of that democracy of which the University has always been so justly proud. All recognize, of course, that the cost of living has substantially advanced during the last decade, and it should be stated in fairness that perhaps the advance in the price of table board which the students now have to pay as compared with earlier years only reflects this general condition. But quite aside from this the charges imposed upon students for rentals in these private lodging houses have been forced by peculiar local conditions up to a level altogether disproportionate to the general advance in the cost of living.

Cornell has long held the proud name of "The People's University," endeavoring always to minister in terms of higher education to every legitimate need of the people of the State and nation, and it would be unfortunate, indeed, and a sad check to one of the noblest ambitions of its Founder, if for any reason the opportunities which it affords should be denied to any one who is physically and mentally fitted to pursue and profit by its instruction. But there is danger of this very result if some provision is not made soon for the proper housing of the young men of the University under conditions that will afford them the ordinary conveniences of life at a moderate and reasonable cost.

In failing to provide halls of residence for these thousands of young men the University, however unintentionally or unavoidably, is fostering a monopoly which imposes great financial hardship upon its students. And, though the President has referred to the matter again and again both in his annual reports and in his public utterances, he repeats with renewed and added emphasis the statement that no friend of the University could render it a greater or more lasting service than to make possible the establishment of a system of residential halls on the campus such as was described in the President's Report for 1906–1907 (pp. 14–17).

COLLEGES AND DEPARTMENTS

(1) *The Graduate Department.* In an earlier section mention was made of the proposal to organize this division of the University as a separate School with a Faculty distinct from the University Faculty. This new Faculty would consist of those professors and assistant professors who are actively engaged in the work of the Graduate Department either by giving instruction to graduate students

in the class room or guiding and supervising their investigations in laboratory and library. This improvement in organization is likely to be effected in the course of the coming year. It is certainly needed as this division of the University has outgrown the present cumbrous machinery of administration. The attendance of graduate students has increased fifty per cent in ten years and almost 500 per cent in twenty years. In 1887–1888 it was fifty-two, in 1897–1898 it was 166, and in 1907–1908 it was 249—the largest enrollment in the history of the University. It is to be borne in mind too that this augmentation of numbers has been in spite of the charge for tuition which was imposed in 1894, tuition before that date having been free to graduate students.

In the Graduate Department as in the University as a whole there is constant danger that the national tendency to worship mere magnitude may distort the vision of the Faculty and especially of the Trustees and friends of the University. It is important, therefore, to keep clearly in view the essential objects of a graduate school. These are the enlargement of existing knowledge and the training of young men and women of superior ability and education in methods of independent investigation so that they too may in time make some contribution to the stock of human knowledge. A love of knowledge, an ardent desire to wrest something from the unknown, a conviction that science and scholarship are along with virtue the chief good of human life, would seem to be the animating motives of a life of research. Given this subjective equipment in combination with superior powers of observation, reasoning and imagination, and productive scholarship and science are assured. But these gifts are not possessed by all professors, and still less by all graduate students. And it is a grave question whether graduates of mediocre ability—

minds lacking in energy, ambition and imagi should, after they have demonstrated their quality in a probationary year, be encouraged or even permitted to continue work intended to fit men to become scholars and investigators. Similarly there should be a differentiation among professors of those who are qualified to engage in research and guide others in the same path and those who are pre-eminent as teachers and assimilative scholars. Surely both are honorable careers, though different. That everybody is fit for everything is a fallacy dangerous enough in politics, but in education it is fatal and paralyzing.

The problem, therefore, which confronts the University in connection with the Graduate School is to find the right sort of men for investigators, whether as professors or students. And having found them it is the duty of the University to provide the necessary means for the prosecution of their work. This involves suitable salaries for professors, leisure for productive work, and the requisite apparatus and other instrumentalities for research. It is not creditable that a professor, in order to get time for scientific investigation, is compelled to make large pecuniary sacrifices, as Professor Gage has done at Cornell. What better use can be made of money than to invest it for the support of original research? This is an obligation which men of wealth and great states owe to the progress of civilization. And there are departments at Cornell University which, with such support, would amply demonstrate the wisdom of the investment. For example, the department of physics last year published or prepared no less than forty investigations, an output not equaled in amount as it was not surpassed in quality by any other physical laboratory in the country. And Professor Nichols reports that "in the absence of a special fund for this purpose we are at a serious disadvantage and I desire to point out as the most urgent need of the department at the present moment an annual appropriation of not less than $5,000 to be used exclusively for the furtherance of research."

It is not necessary that professors should abandon teaching to pursue research. As the late Lord Kelvin said to the President, when he visited Cornell a few years ago, the ideal arrangement for the investigator is to combine research with teaching, but with the amount of teaching reduced sufficiently to leave leisure and vigor of faculty for research. The biographer of Pasteur records that that eminent scientist entertained similar sentiments:

> "Pasteur did not suggest that a scientist should give up teaching; he recognized, on the contrary, that public teaching forces him to embrace in succession every branch of the science he teaches. 'But let him not give too frequent or too varied lectures! they paralyze the faculties,' he said, being well aware of the cost of preparing classes."

(2) *The College of Arts and Sciences.* The subject of liberal education, both in the humanities and in pure science, was discussed at considerable length in the Report of last year (pp. 18–37). Of the important events of 1907–1908 in connection with the College, the first is the selection of Professor Charles H. Hull to succeed Dr. A. Ross Hill (now President of the University of Missouri) as Dean of the Faculty of Arts and Sciences. The appointment was received with universal satisfaction, and Dean Hull may feel that he enjoys, in an unusual degree, the confidence of the Faculty, Trustees and Alumni of the University.

The legislation affecting the College has already been described. The statute creating the Administrative Board for Freshmen and Sophomores involves a clear differentiation of under-classmen from upper-classmen and a less definite differentiation of under-class teachers from the rest of the Faculty (even though these teachers continue to share in the instruction of upper-classmen and graduates). A full realization of this policy would probably lead to the exclusion of upper-classmen from under-class courses and of under-classmen from upper-class courses, and this view finds expression in the annual reports of the professors. "The tendency," says one, "to differentiate the work of under-classmen from the work of upper-classmen should be encouraged, and some regulation forbidding the teaching together of students taken indiscriminately from all the classes would certainly have a happy effect in aiding this differentiation."

This matter may be left to the Administrative Board to settle. Indeed, a good many questions of great importance press for settlement upon that Board. One other is the proper method of instructing under-classmen. The colleges and universities have in the past given less attention to improving the methods of teaching than the schools; and universities certainly have made the mistake of applying to freshmen the methods suitable to the graduate school or to the popular rostrum. But the freshman should not be treated either as an investigator or as a passive listener. Recitation, question and answer, and constant drill are the methods of instruction proper to the freshman class room. The object is assimilation by the ignorant pupil of knowledge with mental reaction upon it. If the modern undergraduate is unresponsive in the class room, that is a natural result of the exclusive use of the lecture system. As one of the professors puts it in his report: "Intellectual overfeeding without intellectual exercise is bound to bring about mental torpor."

The President has every confidence in the ability and wisdom of the Administrative Board to solve these and other problems which concern freshmen and sophomores in the College of Arts and Sciences. And concerning that College as a whole he is happy to report growth and improvement. More than one of the professors' annual reports speak of improvement in the quality of work done by students and of increased seriousness and respect for intellectual discipline and general culture. This encomium is not, however, universal. There are complaints of lack of discipline, of inaccurate knowledge of facts, and of meagre power of thinking. On the whole, however, there can be no doubt that the College is improving. There is evidence, too, that professors and instructors are giving far more thought than in past years to methods of teaching. An example may be found in the English department in which, under the leadership of Professor Sampson, the courses have been reorganized with a view to making more effective the courses open to freshmen, to framing intermediate courses as parts of an organic whole, and diversifying and strengthening the courses for advanced students and graduates. This department received reinforcement and inspiration from the presence and cooperation of Professor Woodberry, whose services have fortunately been secured for next year also.

In numbers the College has increased from 705 in 1905–1906 and 748 in 1906–1907 to 820 in 1907–1908. The temporary anxiety felt in regard to attendance may now be dismissed. But the problem of efficiency is always with an earnest and conscientious Faculty. As one of the professors puts it in his report:

> "We have in recent years considered at various times the fact that the spirit of the time seems to be threatening to lessen seriously the number of students in Arts. The danger that the spirit of the time may affect the *quality* of our work, and thus render the College unworthy to survive, is, it seems to me, one that is in even more urgent need of consideration."

It is the conviction of the President that the Faculty was never more seriously impressed with the gravity of this problem or more resolutely determined to solve it in the right way than it is at the present time.

(3) *The College of Law.* The attendance last year was 206, excluding registrations of students from other Colleges who took certain courses in Law, chiefly the course in contracts. The attendance in 1906-1907 was 211, in 1905-1906 it was 222; when the century opened (1900-1901) it was 182. These figures confirm the opinion expressed by the late Judge Finch, in one of his annual reports as Dean, that with the rapid multiplication of schools of law in the United States the enrollment at existing schools could not, in the absence of exceptional conditions, be expected to increase. It may be observed that schools of medicine are going through a similar experience.

On the other hand the quality of the preparation of students who enter the course shows a marked improvement. Out of eighty-nine students in the class only thirty-nine are pursuing the first year work in Law without previous study in Arts. This preparatory liberal education extended over one or more years; in the case of five students it embraced a college course certified by the A.B. degree. It is perhaps a still more significant fact that as many as six other students who had not enjoyed the advantage of college work have transferred, or are planning to transfer, to the College of Arts and Sciences to pursue liberal studies before resuming their professional training. These facts clearly indicate a growing realization by the students themselves of the inadequacy of a high school course as preparation for the study of law.

It is the aim and desire of the Faculty eventually to require two years of Arts work for admission to the College of Law. That is a consummation for the future, perhaps the distant future. Meantime the Faculty have endorsed in principle the recommendation of the President's last Report that at least one year of satisfactory work in a college of arts and sciences should be required of all students before admission to the study of law. The facts mentioned in the preceding paragraph would seem to justify this advance, but the Trustees, to whom the recommendation of the Faculty has been referred, feeling keenly the need of keeping the University and its departments in close touch with the high schools of the State, are weighing the recommendation with the greatest deliberation before committing themselves to any definite policy.

(4) *The Medical College.* The Cornell University Medical College in the City of New York has had a prosperous and eventful year. The most momentous event was the prescription of a college degree in arts or science as a condition of admission to the course in Medicine. This action was foreshadowed by the detailed consideration of the question in the last Report which the President concluded with the expectant inquiry "whether it might not be better to demand a degree in arts and sciences, as Harvard and Johns Hopkins already do, especially in view of the need of such an institution for superior instruction and research in the great city of New York?" The question thus raised was discussed fully in the Medical Faculty and also in the Board of Trustees; and the action finally taken was the unanimous decision of both bodies, though the Faculty took the initiative in recommending the change to the Trustees. The new test goes into effect in September, 1908, and in and after 1909–1910 physics, chemistry and biology must also be presented for admission.

Cornell, Harvard and Johns Hopkins are the only schools of medicine in America which require for admission a college degree. But eight others now require at least two years of work in a college of arts and sciences,and fifteen more have given notice of the same requirement which goes into effect at three of them (Yale, Northwestern and George Washington) in 1909 and at the remaining twelve in 1910. This indicates a hopeful advance in medical education in the United States, and it was greatly needed. For of the 335 schools of medicine in the civilized world, no fewer than 161, or forty-eight per cent, were in the United States; and "comparison with European medical schools shows that medical education in the United States is deficient both as regards preliminary requirements and in the length of the medical course."

The foregoing facts and figures are taken from the report of the Council of Medical Education of the American Medical Association presented at the fourth annual conference held at Chicago, April 13, 1908, as published in *The Journal of the American Medical Association.* And at that same conference President Eliot spoke of the experiences of Harvard University in establishing higher preliminary requirements. The requirement of a baccalaureate degree, he said, had seriously cut down the number of students in medicine, but its effect on endowments for the medical school had been very different. "Since we demanded a degree for admission," said Presdient Eliot, "we have had an additional endowment of $4,000,000. Gentlemen, the way to get endowments for medicine is to improve medical education."

The experience of Cornell agrees with that of Harvard in regard to the interest which men of wealth take in the improvement of medical education and the advancement of medical research. The Cornell University Medical College in the City of New York owes its existence and support to one man; and every improvement made in the work of the College, every reaching forth after higher things, every elevation of standard and ideal, have not only had his warm sympathy and approval but have been made possible by his ever-increasing generosity. This munificent patron of the Medical College is averse to any public mention of his name in connection with the enterprise, but his actions prove that he is possessed by a strong desire to enlarge man's knowledge of the medical sciences and to train up medical practitioners of superior capacity and education. Few things could be more encouraging, promising and stimulating for medical science and education in America.

Undoubtedly, too, Cornell will have Harvard's experience of a great and continued diminution in the number of students. Indeed, the falling-off is pretty certain to be greater as the proportion of college graduates in attendance has been smaller at Cornell than it was at Harvard. The Ithaca Division of the Medical College from which students come to New York for the third and fourth years of the course has on the average sent during the last four years one college graduate for two non-graduates, but a very much smaller proportion of matriculants in New York have been college graduates or college students. Consequently only a very small entering class can be expected this year, especially as the requirement of a baccalaureate degree which goes into effect in September was not announced till December last.

During the ten years of its existence the Medical College has enrolled 3,497 students, of whom 582 have graduated. Of these 582 doctors of medicine, 416 have secured hospital appointments—a number remarkably large, especially in view of the standing of the hospitals and the character of the positions concerned.

As to the Faculty of ten years ago, while many new names have been added, the original members, with but two exceptions, are still active. Professor Flint retired two years ago and Professor Loomis, as noted elsewhere, died last year of pneumonia. It has been a Faculty characterized by genuine devotion to the College and great efficiency in the work of instruction, while some of its members have also won distinction for themselves and the institution by their scientific investigations, for which the College, thanks to the munificence of its Founder, has always made the most liberal provision. The new position into which the College has been put by the requirement of a baccalaureate degree for admission, the needs and demands of college graduates when admitted, and the duty of advancing medical science, are bound to modify the type of professor by laying increased stress on scientific attainments and interest and ability in original research. And these controlling circumstances must be constantly kept in mind in filling all vacancies on the staff. A medical school attended only by college graduates, who have already had training for four years in the liberal arts and in the physical, chemical and biological sciences, is a wholly different institution from a medical school attended by pupils whose preliminary education and mental training are limited to the high school. And that difference is accentuated by the further fact that this College is consciously dedicated to research as well as to high grade instruction. A Faculty animated by these ideals and equal to these tasks is absolutely essential to the Cornell University Medical College; nay, it could not be *such a College* without *such a Faculty.* It is hoped that in filling the professorship of physiology vacated by the retirement of Professor Flint it may be possible to find a scientist who meets the new and severe requirements of the College.

A list of the publications of the Medical College since its foundation has been published separately. It makes even to the mind of the layman a very impressive showing. The most fruitful department has been pathology and bacteriology, for which the amplest provision has also been made both as regards staff and equipment. The success attained by that department has been achieved in no small degree through the cordial coöperation of other departments, for the research forces of the College work together in perfect harmony. The methods followed and results obtained are best described in the words of the head of that department, Dr. Ewing:

> "None of our staff has been urged to publish anything until ready, and has been encouraged to pursue themes regardless of the immediate outlook for results; some of these themes, as thyroid therapy, have required an outlay of many thousands of dollars and the united activity of five or six persons. I can assure the Faculty and Council that within a year we shall be able to fully justify this financial and moral support, and to demonstrate that Cornell University has established new standards of research. The time is passed in many fields when individual workers can reach important results single-handed. Many men and much money may be required to bring a problem to a definite solution, and I am not aware that any other American institution has recognized this fact and provided to a similar extent men and money for the pursuit of an important problem in hand. The review of the progress of thyroid therapy by Drs. Rogers and Beebe, now in press, will indicate to some extent the justification of this claim. It will be further justified by other studies on the physiology and pathology of the thyroid and parathyroid glands and in the general therapeutic applications of thyroid and parathyroid products on which important data have been secured. Dr. Buxton's studies on the physical chemistry of agglutination are of first importance but too technical to attract general attention. The work of the Huntington Fund for Cancer Research has progressed under the immediate direction of Dr. Beebe, assisted by Drs. Buxton, Weil, Shaffer and myself. A definite stage of the work on a sarcoma of dogs was reached when the tumor nature of this process was established and the tumors were made to disappear by direct transfusion of the blood of immune dogs, and by the inoculation of standardized prodigiosus toxins.
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> "Other lines of theoretical and practical interest have been pursued, some of which are described in the 2nd Report, 1908, of the Huntington Fund, which contains fourteen contributions."

Other important features of the work of the Medical College and suggestions for meeting existing needs and deficiencies will be found in the admirable report of Dean Polk (Appendix V). The smoothness with which the work of the institution has been carried on for ten years and the universal harmony and good feeling which prevail in the Faculty are in no small degree due to the Dean's kindness, tact and good sense. Where all have done so well it seems invidious to discriminate, but if names are to be mentioned at all, justice calls for an expression of appreciation of the loyal, generous, wise and efficient services of Dr. Stimson, who for ten years has had the College on his mind and heart as the chief interest of his life.

The details regarding the operation of the Ithaca Division of the Medical College will be found in the report of Dr. Kingsbury (Appendix VI), who acted as Secretary during the latter half of the year while Dr. Kerr was absent in Europe on sabbatic leave. The Ithaca Faculty and students look forward with impatience to the reorganization of the curriculum,which, since physics and inorganic chemistry are hereafter to be demanded at entrance, will make it possible to relieve the crowding and overwork from which they are all at present suffering. The complaint at present is that students are given too much to do, and also that the hours are not fairly apportioned among the different subjects. A second reform called for is the reorganization of the Faculty so as to include all professors, assistant professors and instructors who give instruction to medical students. Lastly, a closer association with the Faculty in New York is also deemed desirable. It has been suggested that this might be effected by securing lectures before the medical students at Ithaca from the heads of the departments of the Medical College in New York City.

(5) *The New York State Veterinary College.* The retirement in June of Dr. Law on an age pension furnished to the University by the Carnegie Foundation has been mentioned elsewhere (page 9). He reports for the past year a recovery from the falling-off of matriculants to the

College which was caused by the doubling of the entrance requirement in 1905, and he expresses the opinion that the time for extending the course from three years to four is no longer remote. As veterinary sanitary administration has been a prominent feature of Dr. Law's life work he devotes a large portion of this, his last report as Director, to an examination of the legislative and administrative arrangements made by the State of New York for the protection of its herds against the terrible and increasing scourge of tuberculosis (see Appendix VII). He also asks the State for additional appropriations for the Veterinary College with a view to the improvement of veterinary education, which, with the advance of veterinary science, have been the other objects of Dr. Law's supreme interest.

The College is by law dedicated to both instruction and research. On the side of instruction the object is to send out men properly trained to treat and protect the flocks and herds of the State, which have an aggregate value of more than $170,000,000. With the accumulation of new knowledge of the cause, nature, treatment and prevention of animal disease, the requirements for a veterinary education are constantly increasing, thereby calling for a larger number of teachers and more and better equipment. On the side of research, while the field is inviting and the harvest ripe, lack of means has in the past proved a serious obstacle, though, in spite of all hampering conditions, the members of the Faculty have conducted investigations and produced results of very great value to veterinary science and practice. Still there is not one of the animal diseases prevalent in the State that is not waiting for further investigation into its nature and means of prevention. The extensive losses due to glanders, rabies, anthrax, infectious abortion and tuberculosis can be greatly lessened by accurate knowledge derived from the results of well-directed research along definite and clearly defined lines.

The University has purchased for the use of the New York State College of Veterinary Medicine an experimental farm of 100 acres for the investigation of animal diseases. It is hoped that the State will supply the means necessary for investigation in this inexhaustible field. The College must also have a building for clinics with suitable equipment. And then for the diffusion of knowledge among veterinarians and owners of live stock a bureau of extension work should be organized which will also need an additional appropriation for its maintenance.

To succeed Dr. Law in the Directorship of the College, the Trustees have appointed Dr. Veranus A. Moore, professor of comparative pathology and bacteriology. He has at the request of the President prepared a special report on the condition, work and needs of the New York State Veterinary College which will be separately printed for the use of Trustees and others. It is an instructive survey of the institution and a sober estimate of its needs. The minimum requirements which he sets down for next year are an increase of the annual appropriation for maintenance from $30,000 to $40,000; a new annual appropriation to begin with $10,000 for research, experimental investigations and extension work; and a special appropriation of $125,000 for buildings and equipment for the clinical work of the College. "The total expense," says Director Moore, "of adequately maintaining this College together with the interest on the first cost of the buildings when completed would equal but a fraction of one per cent of the loss to our State by the death of animals from diseases that are largely preventable."

The scientific and practical aid which for many years has been rendered by Dr. Moore to the veterinarians and the stock owners of the State and also to the State Commissioner of Agriculture are so well-known that the Trustees will feel assured of their support in presenting Director

Moore's requisition for the College to the favorable consideration of the Legislature.

(6) *The New York State College of Agriculture.* The dedication of the new buildings of the College of Agriculture made the year 1906–1907 a memorable one in the history of agricultural education in the State of New York. Accordingly in the Report for that year the whole subject was discussed at considerable length by the President (pp. 59–66) as well as by the Director (Appendix VIII). It was recognized that the age called for cultivated intelligence and scientific methods in all branches of agriculture. The agricultural condition of the State was described as well as the efforts which the College of Agriculture was making to improve that condition. The liberal appropriations made by the last legislature enable the College to continue and augment those efforts. Besides the regular fund of $150,000 for maintenance in the appropriation bill, the supply bill carried special appropriations of $30,000 for glass houses and $10,000 for extension work on farms and with farmers.

Like the great buildings opened last year these new facilities spell new opportunities and of course mean increased obligations and responsibilities. As the able and enthusiastic Director of the College says in his report, "Whatever the College has been able to accomplish in the past for the rural interests of the State, it ought now to be able greatly to extend its usefulness and influence."

Not counting graduates in Agriculture (who are under the jurisdiction of the University Faculty and not of the Faculty of Agriculture) there were in 1907–1908 registered in the College of Agriculture 610 students, of whom 206 were regularly enrolled in the four year course, 142 were special students and the rest attendants at the Winter School in Agriculture. The courses in the Winter School pursued by the young men and women who came from the farms to the University for three months of elementary work, embraced general agriculture, dairying, poultry husbandry, horticulture and home economics. The latter subject appealed especially to women. And of women twelve are regular students, ten special students, and twelve pupils in the winter courses. The number of students in all courses increases and will doubtless continue to increase in the College of Agriculture.

The great event of the year for the College of Agriculture was the purchase by the University of additional farm lands. An enlargement of the University farm was earnestly recommended, first, by Director Roberts and, since, by Director Bailey. The President strongly endorsed these recommendations, but the Trustees were not agreed that the time for action had arrived. The increase, however, in the number of students in the College of Agriculture, the erection by the State of large buildings for the use of the College, and the generous provision made by the State for its support, all combined, along with the continuously increasing inadequacy of the present farm, to convince the Trustees that additional lands were necessary. Local conditions were also favorable for purchase, and there developed a strong feeling that if lands were not secured during the year, it would be difficult to secure them hereafter at anything like the same prices. The matter was accordingly referred to a committee, consisting of Judge Blood, Attorney Van Cleef and Treasurer Williams, with instructions to purchase. The committee was, of course, given all proper discretion, and the result of their work merits high praise. They purchased farms from different owners, which, in combination with former holdings, gives the College of Agriculture 579 acres for farming purposes and the Veterinary College 100 acres for an experimental station for sick animals. In addition the University campus has been enlarged so that it now embraces 350 acres.

Now that the University has greatly enlarged its farms, it will be possible, if State funds are available, to add to the live stock of the College, which is needed as material both for demonstration to students and research by professors. New York State produces about one ninth of the hay and forage of the United States, and the animal industries of the State are of enormous value. This is a field, therefore, to which the instruction and investigation of the College should be peculiarly directed, and the State appropriation of $25,000 for barns has solved the problem of housing facilities as the purchase by the University of land has solved the problems of pastures and fodder.

The activities of the College of Agriculture continue to be maintained along the three well-marked lines of instruction to students who attend the College, extension work among the farmers of the State and their families as well as teachers in the schools, and investigation and experimentation both in the laboratories of the College and on selected farms throughout the State. The goal is an enlargement of agricultural knowledge, a better education for farmers, and scientific method applied to the organization of their industries.

For further details regarding the College of Agriculture the President refers to the Report of last year, already mentioned, and to the Director's report herewith published as Appendix VIII.

(7) *The College of Architecture.* The attendance has for the first time touched 100, which is just double the attendance of the year 1901–1902. It is curious that the increase since that date has been almost entirely in the alternate years, as the following figures show: fifty in 1901–1902, fifty-three in 1902–1903, sixty-five in 1903-

1904, sixty-eight in 1904–1905, eighty-one in 1905–1906, eighty-two in 1906–1907, and 100 in 1907–1908. The same rhythmic variation appears in the numbers of graduates: fourteen in 1905, seven in 1906, fifteen in 1907, and eight in 1908. Of the 100 students enrolled, four were young women. In evidence of the high quality of work maintained by the students, the Director reports that in design they carried off "the major honors in such of the Beaux Arts competitions as their schedule permitted them to enter." Should the increase in attendance continue it will be necessary, in the interest of efficient instruction, for the first time to divide the classes into sections and consequently to provide additional teachers.

The College of Architecture now furnishes instruction in drawing to students in other Colleges. Director Martin has now reached the conclusion that it would be to the interest of these students themselves if they received this instruction in their own Colleges, not only because the standard required of architectural students is (and considering their curriculum must be) higher than that required of other students, but also because in those Colleges in which drawing is studied as a means to an end in scientific work, rather than as a medium for artistic expression, better results can be attained if that end is kept in view from the beginning. This opens once more, though in a new field, the large question of the interrelation of Colleges in the function of instruction and the need of securing the maximum efficiency without unnecessary duplication. The Colleges affected, however, are only the College of Arts and Sciences and the College of Agriculture, and the latter is already organized with a view to such differentiation of work.

The President discussed in the last Report the policy of prescribing an additional year of study in Arts for students in Architecture, making essentially a two year course in Arts and Sciences followed by a three year course in Architecture. The Faculty have formulated a five year course as an alternative to the present four year course which they desire to continue. Their action was reported to the Trustees, by whom it is still held under consideration.

Director Martin was absent on sabbatic leave during the last half of the year, his administrative duties being assumed and satisfactorily performed by Assistant Professor Phelps.

(8) *The College of Civil Engineering.* The attendance was 511, which is more than double the attendance five years ago. The figures for the five years are as follows: 252 in 1902–1903, 326 in 1903–1904, 385 in 1904–1905, 425 in 1905–1906, 466 in 1906–1907, 511 in 1907–1908. Of the new students entering in September, 1907, advanced standing was gained by twenty-two—by eight as sophomores, eleven as juniors and three as seniors.

Although Lincoln Hall is now occupied exclusively by the College of Civil Engineering, it is already inadequate to accommodate the College, and classes must be housed in other University buildings. Additional space is still needed, and cannot be provided elsewhere, for the testing laboratory, for the experimental work in concrete and reinforced concrete, and for larger lecture and reading rooms. The enlargement of Lincoln Hall by the extension of wings eastward to the east line of Goldwin Smith Hall offers a natural solution of all these problems,if only money were available to meet the cost of construction.

New courses have been provided, and taken by classes ranging from fourteen to sixty-five students in steel building construction, reinforced concrete construction, railroad operation and management, and railroad construction and maintenance. The growing importance of sanitary engineering has been recognized by the addition of two new courses. Strong as the department of hydraulics now is, it is greatly in need of development to meet the demands of the age and the prospects of the future. Water is destined from now on to play a great part in the economic development of the United States, for apart from its uses for domestic and sanitary purposes, it is hereafter to be used on a vast scale for power and for irrigation as well as for navigation. The maximum benefit to be got will be sought in the east from navigation and power and in the west from irrigation and power. For the new work to come in these vast fields there will be needed a type of engineer highly specialized in hydraulics.

After a careful study of the work of instruction in the College, Director Haskell recommends that it be arranged under six separate divisions, each under the supervision of a responsible head. These divisions are designated as (1) topographic and geodetic engineering, including all surveying, except railroad, as well as geodesy and astronomy, (2) applied mechanics and hydraulics, (3) railroad engineering, (4) bridge engineering, (5) municipal and sanitary engineering, and (6) miscellaneous, including drawing, descriptive geometry, etc. The event of the year in this College may be regarded as the appointment, to take charge of division 1, of Professor David A. Molitor (see p. 12 above), an engineer of wide experience and national reputation.

(9) *The Sibley College of Mechanical Engineering and Mechanic Arts.* The attendance was 1,127, which is nearly twice the attendance at the close of the century when the figures were 571. Since that date the attendance has been as follows: 661 in 1900–1901, 700 in 1901–1902, 801 in 1902–1903, 964 in 1903–1904, 1,060 in 1904–1905, 1,096 in 1905–1906, 1,081 in 1906–1907, and 1,127 in 1907–1908. Entrance requirements have in recent years been enforced

with extraordinary strictness. A college with more than a thousand students is exceedingly costly to conduct, and while the fame of Sibley College continues to attract increasing numbers of students it is greatly to be desired that endowments might be forthcoming to enable the institution to maintain its high standard of work and enhance the reputation it already enjoys.

The Director and Faculty are doing their part of the work with fidelity, ability and success. Improvements of one kind and another are being constantly made. The new course on the principles of manufacturing has proved useful and fruitful. Next year there is to be a better correlation of pattern-making with foundry work, and a consequent transference of the former subject to the second year accompanied by a removal of foundry and forge work from the second to the first. The association of drawing with machine design and the concentration during the first three years of the course of all the necessary fundamental training in these subjects is now complete; and the undergraduate in his fourth year is left free to elect more advanced work in design from among a number of special lines of work, as, for example, the design of steam turbines or of reciprocating steam engines or of railway rolling stock or of ships or of objects and appliances in the field of electrical engineering or other divisions of the subject. The new junior course in electrical laboratory work, given last year for the first time, has proved a very valuable addition to the Engineering curriculum. The facilities of the laboratory of experimental engineering have been notably increased, and in this connection the generosity of the York Manufacturing Company and the Babcock and Wilcox Company is acknowledged with grateful appreciation.

The present needs of Sibley College are presented by the Director so forcibly that it seems best to quote his language:

"Sibley College today has two pressing needs requiring considerable expenditure. First, is the need for a new building for housing the machine shop and the wood shop. In the present location, which is necessarily temporary, there is naturally a good deal of hesitation about installing machines or systems with an idea of permanence. This, however, is not the most important thing connected with the providing of a new shop building. Vacating the present building would render space available for the expansion of the experimental laboratory which is now the only crowded department of Sibley College. A shop building for the accommodation of the machine shop and the wood shop, of fireproof construction and with all necessary modern improvements, could be built and the transfer of apparatus could be made in addition for a sum not exceeding $50,000.

"The second need is for an annual appropriation for research. It is believed that it is very desirable for a technical school to have research work constantly under way because, first, it is thus doing its part in the making of additions to the data of engineering; secondly, because a laboratory of research is a most stimulating influence both to students and teachers. At the University of Wisconsin an annual income of $5,000 is available for equipment in purely mechanical engineering work. At the University of Illinois a laboratory of experimental research has been established and is maintained by the state. If an annual income for this purpose of $5,000 could be made available it would be possible, with our present equipment, to produce results that would be of great advantage to the engineering world and to Sibley College."

(10) *The Summer Session.* The Summer Session of 1908, in spite of the fact that Sage College and Cottage (where hundreds of summer students formerly lived) were closed for repairs, was the largest in the history of the University, and all members of the Faculty join in the most emphatic testimony as to the high quality of work done. The instruction was given by fourteen professors, twenty-five assistant professors, twenty-two instructors, and seventeen assistants, thirty of the thirty-nine teachers of professorial rank being members of the Faculty of Cornell University. To the loyal, eager, devoted and skillful labors of the gentlemen of the teaching staff Director Bristol attributes the marked success of the Session.

The number of students enrolled in the Summer Session was 841. In 1907 there were 715, in 1906 there were 642, and in 1905 there were 619. At this rate of increase the 1,000-mark will be reached in the next two or three years. Of the 841 students 173 held first degrees and twenty-six higher degrees. It is an encouraging circumstance that the number of graduates attending the Session is rapidly increasing; there were 130 in 1905 and in 1908 there were 199. Beside these 199 graduates there were enrolled 372 present undergraduates of Cornell and 107 former students, but not graduates, of other colleges. The Cornell undergraduates in 1907 numbered 288, and the Director reports that the rise of the figures to 372 in 1908 is due, not to any increase in the number of men who are making up deficiencies in work, but to a laudable desire on the part of undergraduates to avail themselves of the advantage of summer courses recently added to the curriculum. The number of teachers enrolled was 294, of whom thirty-two were engaged in teaching in colleges, twelve in normal schools, 147 in high schools, eighty-two in grammar or elementary schools, and eight in private schools, while thirteen were performing functions in the field of superintendence or supervision. These figures show, in comparison with last year's, a marked diminution in the number of teachers from elementary schools and an increase in the number of teachers from colleges and high schools, an indication that the work is appealing more and more to the strongest and most ambitious teachers in the higher grades of educational work. Along with this change—and as a part of it—there has been an increase in the number of men. The attendance also increased of persons classed formerly neither as students nor as teachers.

The Summer Session was intended originally for teachers. The curriculum, however, already embraces subjects far beyond the limits of the high school curriculum, as, for example, descriptive geometry, mechanics, machine design and reinforced concrete arch; and the Director is of the opinion that more subjects of this sort should be added to the programme. At the same time there is a demand for more advanced courses in the Arts and Sciences which might be taken by candidates for an advanced degree, but this matter must await the decision of the Faculty on the more pressing question of the acceptance of summer work in satisfaction of the requirements for advanced degrees, and especially the A.M., which is tending to become a pedagogic degree.

Mr. Arthur D. Dean, who was in charge of manual training in the Summer Session, has been appointed chief of the division of industrial education in the New York State Department of Education. He has done most successful work in organizing manual training as a part of the work of the Summer Session.

(11) *Sage College.* Most of the women of the University reside in Sage College, Sage Cottage, Alumnæ House and in two other houses specially reserved for the purpose. About ten seniors or older students roomed in Cascadilla building; and the rest lived either at home or with friends or in places approved by the Warden. Women in all houses now being under the jurisdiction of the Warden, the old distinctions between women in Sage and women in other houses are rapidly disappearing. And the women are organizing a self-governing association, with a general committee composed of representatives of all the houses to deal with important matters concerning all alike, and special house committees to settle the minor questions arising in their own houses severally.

Sage College and Sage Cottage are the property of the University. A system of automatic fire alarms and thermostats was installed during the year, and a night watchman appointed in September to patrol the corridors, so that, as the Warden reports, "protection against fire would now seem to be complete."

The great event of the year, however, was the alteration and radical improvement made in the interior of Sage College during the past summer. Hardwood floors were placed in all parts of the building, all hallways were refinished and fitted with steel ceilings, steel ceilings were also placed in all rooms where the plaster was loose, and all bedrooms and studies were recalcimined and all woodwork painted or varnished. The plumbing, too, was entirely overhauled and brought up to date, while additional toilet rooms were placed on the third floor and in the basement, and all toilet rooms (with the exception of one small one) were furnished with stationary hand wash basins. A new Worthington water-tube boiler was installed in the basement for supplying power to the kitchen and laundry, and also a new hot water boiler to supply the bath-rooms in the south and west wings.

Alterations in the building proper consisted of the conversion of two rooms on the first floor near the main entrance into waiting and reception halls, connected with each other and with the main halls by large archways, and the removal of the old porch dining room, which was replaced by a new dining room, double the size, connected with the main dining room by doorways cut through the old window spaces. The kitchen was entirely overhauled and by the removal of the dishwashing machinery to an addition built for that purpose, in which there were also provided additional servants' rooms, was so enlarged as to make possible separate meat and pastry kitchens, while considerable new equipment was installed looking to both convenience and efficiency, notably a large and thoroughly modern sanitary meat cold storage box, the gift of Trustee Boldt, through which have been passed water coils supplying the drinking faucets in the building with an abundance of ice water, and a second cold storage box, with separate apartments for milk and butter and for vegetables.

Finally, a contract has been let for a new passenger elevator of the most modern type with all modern safety appliances and this will be installed during the coming Christmas recess. The total cost of all these improvements was about $30,000.

The number of women enrolled in the University during the academic year from September to June was 415, of whom thirty-eight were in the Graduate Department, 313 in Arts and Sciences, one in Law, twenty-four in Medicine, thirty-four in Agriculture, one in Veterinary Medicine, and four in Architecture. There are no more diligent or conscientious students in the University; and as a consequence they make scarcely any problem for the Faculty or other authorities of the University except that of furnishing efficient instruction or competent guidance in investigation. At Cornell, however, as at some other universities to which women are admitted, there is an element among the undergraduates which does not regard their presence with any degree of favor. It is impossible for the Faculty to control that sentiment, but it is the duty of the Faculty, the Trustees and every officer of the University, so far as their official power and even their personal influence may go, to see that women enjoy without let or hindrance the same rights, privileges and immunities as other students of the University. Happily it is seldom that serious occasions arise which call for the exercise of this authority. It was, however, asserted during the year in a case of boyish impoliteness, which, though really rudeness, was found, on investigation, to have been intended only as an innocent practical joke. The instance, however, emphasizes the indispensable obligation of the young men in the University to treat the young women not only fairly and honorably but with the finest courtesy and chivalry. The universities in a democracy should be schools of manners and morals as well as of learning and science.

Miss Loomis, the Warden of Sage College, was absent from January to June on account of illness. Her health, however, has been re-established and she resumes her duties at the beginning of the next academic year. In welcoming her back to her post, the University community and especially the women students will cordially wish her success in her work and loyally and unitedly aid her in achieving it.

(12) *The Military Department.* The military department of the University, which is in charge of an officer of the United States Army, is inspected every year by an inspector detailed by the War Department. The report of the inspection in 1907, which was made by Captain George H. Shelton, General Staff, United States Army, concludes with the remark that "the work done at Cornell is, for this class of institution, of a high order and valuable to the University, the War Department and the Nation." During the year which has since elapsed the same standard of efficiency has been maintained in the department by Captain Barton. In response to his urgent appeals the Trustees had already made appropriations providing for the pay of his eleven assistants and free tuition for his twenty-two cadet officers, which had raised the cost of maintaining the department from $1,865 in 1904–1905 to $6,245 in 1907–1908. The change, though costly, was well worth the money, for it enabled Captain Barton to secure cadet officers who were thoroughly acquainted with their duties and who could, therefore, be relied on to turn out good companies as well as to command the respect of the students. Nor is this increase in efficiency in the corps of

cadets the only result that followed from the action of the Board of Trustees in increasing the appropriations to the department. That measure has added greatly to the attractiveness of the position of commandant and increased his usefulness, while on the other hand the improvement in the standing of the officers and in the efficiency of their work has reacted favorably upon the sentiment of the entire student body in regard to the subject of military drill.

There are three other improvements which the War Department, the inspecting officer and Captain Barton himself desire to have effected. One of them is the setting aside of an hour for drill, different from the afternoon period already allotted to the student body for recreation. The Faculty of the University is on record as favoring this change, and the hour recommended was twelve to one. Unfortunately, however, the congestion of the shops in Sibley College renders it impossible at the present time to arrange the schedule of University work so that all students could be free at that hour.

The other changes desired by the War Department have to do with the present practice of excusing certain students from military drill. First, students have been excused who come from preparatory schools in which military training was a part of the course, and, secondly, a considerable number of freshmen are excused for the purpose of taking athletics in lieu of military drill. The War Department, without dictating to the universities to which it details officers, recommends that every effort should be made to bring a larger number of men under military training and to extend that training through the more advanced courses. Captain Barton is in full accord with this ideal of the War Department, but at Cornell University the adoption of the recommendations of the War Department would result in making the corps of cadets of such size as to render it impossible to do anything with it in the present inadequate Armory of the University. A new and much larger Armory is, therefore, the first condition of further improvement of the military department at Cornell University.

It is hoped that the State of New York may provide such a building. There can be no doubt about the excellence of the work achieved by the military department of this University. Three army inspectors in succession have now answered affirmatively the question which appears in the army inspector's last report, "Has the course of inspection prescribed . . . been carried out?" And that Cornell University is also accomplishing the object of the War Department in maintaining such details at universities is now likewise a matter of official record. In a circular letter from the War Department to commandants, dated January 25, 1908, it was said that "the main object of the military instruction given at civil educational institutions having army officers as professors of military science and tactics should be to qualify students who enter the military departments of such institutions to be company officers of infantry volunteers or militia." That Cornell University is fulfilling the object sought by the Morrill Act as thus formulated by the War Department is not merely a matter of assertion but of official record. The records of the Spanish-American War show no less than sixty officers of volunteers who received their military training in the cadet corps of Cornell University. There are now seventeen officers of the regular army who are graduates of Cornell and a great many more who did not actually graduate but who were students here. The last class from civil life commissioned in the army contained four Cornell graduates—Charles L. Williams, '05, Chester J. Goodier, '07, Robert E. Vose, '03, and George Ruhlen, Jr., '07.

The last inspection of the cadet corps was made on the 11th of May, 1908, by Captain P. C. Harris of the General Staff. He reports that the requirements of the War Department as to the course of instruction have been complied with and that the instruction is of such extent and thoroughness as to qualify the average graduate for a commission as a lieutenant of volunteers, and his report concludes with the following words:

> "The work accomplished at Cornell University is of a high order, and it would be a mistake to make any radical change at this time. There has been in the last few years a steady improvement in the military department of this university, for which Captain Frank A. Barton, 3d U. S. Cavalry, Professor of Military Science and Tactics, deserves great credit. With the encouragement and support of the president, who is a firm believer in the value of military training for young men, he has succeeded in arousing the interest of the students and in removing to a large extent the prejudice which existed against the drills and military inspection."

The President desires cordially to endorse this official encomium on Captain Barton. He has infused a new spirit into the military department of Cornell University and brought it measurably up to the ideal entertained by the War Department and by the authorities of the University. From beginning to end his work at Cornell has been an unqualified success. His high patriotism, his zeal for the service, his devotion to his work, his practical gifts as an administrator, his skill and persistency in pushing reforms till everybody recognized they were indispensable, and the admirable courtesy and diplomacy which he combined with the disciplinarian's firmness and stern sense of duty, enabled him to raise the department to a markedly higher plane of efficiency and invest it with a sentiment of regard and popularity such as it had never before enjoyed. In leaving the University Captain Barton carries with him the admiration and affectionate regard both of the students and of his colleagues in the Faculty.

To fill the vacancy caused by the expiration of Captain Barton's appointment, the War Department on the application of the University detailed Captain Ervin L. Phillips (see p. 13), who reported for duty on September 25th.

THE LIBRARY

The University Library now contains over 350,000 (353,638) volumes and over 50,000 (53,000) pamphlets. Over 300,000 (307,334) volumes and all the pamphlets are housed in the general library building which the late Henry W. Sage erected for the University and endowed with $300,000 as a book fund. Most of the annual accessions to the Library, which last year numbered nearly 14,000 (13,937) volumes and 2,000 pamphlets, were purchased from the income of that fund. The gifts, however, were considerable, aggregating 3,646 volumes. The most important of the gifts as also of the purchases of the year are mentioned in the report of the Librarian (Appendix XV).

The establishment of a separate library in the upper story of Goldwin Smith Hall for the use of undergraduates in Arts was an important event of the year. The collection already numbers about 1,100 volumes, and must be greatly increased. It is to students in literature, history and philosophy what the laboratory is to students in science. The collection consists chiefly of additional copies of books already in the general library, which are used in undergraduate work in the humanities, and it contains in some cases many copies of the books most in demand in the larger classes. This arrangement now made in the interest of students in Arts had already been effected for students in other Colleges (Engineering, etc.) which have special library collections in their own buildings.

A still more noteworthy event was the extension of the privilege of drawing books from the general library for home use to all regularly matriculated students of the University. This privilege was at first confined to Faculty and graduate students, then it was extended to seniors and juniors, and now it is granted generally to all members of the University, whether students or teachers. With the exception of certain reserved collections, these successive acts of legislation have the effect of converting the library of reference to a circulating library. As a consequence its relation to the recently established circulating library must now be reconsidered. That the change does not necessarily involve the abandonment of that enterprise is obvious enough. For an incomparable advantage of the circulating library was that it brought together in a comparatively small compass the books which students might desire for general reading and encouraged the students, in Dr. Johnson's phrase, "to browse" in that collection—to see, handle and taste books at their leisure. And this free access to the shelves for choosing books for general reading has been greatly appreciated by the students; the figures in the Librarian's report show that nearly one fourth of all the books taken from the Library for home use were from this collection though it contained only about 3,500 volumes. And a still larger number of students used books from this collection in the room without taking them home. Such a collection, therefore, seems specially adapted to promote the "reading habit" among undergraduates, which teachers very generally declare the chief desideratum in collegiate education at the present time. The suitable accommodation of such a circulating library is a grave problem. No satisfactory solution can be found short of an enlargement of the Library building which in a few years, at the present rate of growth, will be full to overflowing, and when the enlargement comes, special provision should be made for the circulating library and also, if possible, for the Fiske collections.

THE INFIRMARY

The new Committee, consisting of Mr. C. D. Bostwick, chairman, Judge Blood and Professor Kerr, have now had charge of the Infirmary for a year. The chairman's report, which is brief and which covers completely the important events of the year, is as follows:

> "By reason of the action of the Board of Trustees at the time the present Infirmary Committee was appointed, in terminating the employment of the Infirmary Staff, the first act of the Committee was to secure a new Superintendent. Miss Harriet Sutherland formerly with St. Lukes Hospital, Utica, was appointed to the position and her administration has given satisfaction.
>
> "The exterior of the building has been repainted and necessary repairs made. Some new equipment was purchased, particularly copper instrument sterilizers for the surgery. Two useful and needed gifts were received from seniors in the University. A wheel chair from Mr. C. L. Bradley and a complete X-Ray machine with table and photographic outfit from Mr. C. B. Goodspeed.
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> "On the recommendation of this Committee the Trustees enacted that hereafter an Infirmary fee of $2.00 per term be charged to all students entitling them to ordinary care for not exceeding two weeks in one year. This provision apparently meets the approval of the student body and will I think be a satisfactory change.
>
> "During this year there have been among the students and in the city serious outbreaks of three contagious diseases, diphtheria, scarlet fever and measles. As the necessary isolation of such cases cannot be had at the Infirmary, these students were refused admittance. The patients were well taken care of at the Ithaca City Hospital and the Board of Health Emergency Hospital, but the urgent need of an isolation ward in connection with the Infirmary was impressed on all interested. Such a ward should have at least thirty beds and if built in keeping with the present building would probably cost, with equipment, between $40,000 and $50,000. Such a building I believe to be an urgent need of the University. I attach detailed list of diseases treated and financial statement."

Unhappily two students who were sick died at the Infirmary. One was Ernest C. A. Schaefer of Liverpool, New York, a junior in Mechanical Engineering, who had for years been a victim of chronic diabetis. Mr. Schaefer was a very diligent student and made an excellent record in his University work. The other was H. Douglas Fowler of Galveston, Texas, who had just registered as a freshman in

Mechanical Engineering, when he suddenly died of meningitis. Mr. Fowler was a young man of great promise, and his death coming with such suddenness and at the very beginning of the academic year cast a gloom over the entire University community.

There were 467 patients admitted during the year from July 1, 1907, to July 1, 1908, of whom 422 were cured, twenty-seven discharged as improved, ten transferred to other hospitals, while seven were not improved and, as already stated, two died. Of the cases treated 282 were medical, 148 surgical, and thirty-eight affections of the eye, ear and nose.

Even with an annual income of $5,000 on the endowment fund which Messrs. Dean Sage and William H. Sage so generously provided for the Infirmary at the time they presented it to the University, it was not quite self-supporting during the year. The balance on hand August 1, 1907, was $11,559.18 and the balance on August 1, 1908, was $11,292.57. The following table shows in detail the cost of conducting the Infirmary and the receipts from students since 1898:

Year	Expense	No. of Days Service	Cost per day per patient	Charge per day per patient	Cost over Receipts
1898–1899	$ 6,223.95	1712	$3.63	$1.53	$2.10
1899–1900	5,084.73	1729	2.94	1.49	1.45
1900–1901	5,581.30	2130	2.62	1.53	1.09
1901–1902	5,527.07	2268	2.44	1.55	.89
1902–1903	16,461.39	4563	3.61	2.85	.76
1903–1904	6,762.78	2517	2.68	1.45	1.23
1904–1905	6,878.86	2060	3.34	1.45	1.89
1905–1906	7,287.10	1996	3.65	1.58	2.07
1906–1907	7,072.50	2452	2.80	1.24	1.56
1907–1908	10,038.85	3141	3.19	1.45	1.74

Average daily attendance 1907–1908, 11.7.

The Infirmary fee of $2 per term hereafter to be charged to all students should, in spite of the increased cost of maintenance, make the Infirmary self-supporting and leave at least a portion of the income on the endowment fund available for the erection of a ward for contagious diseases in connection with the Infirmary. The not infrequent outbreaks of contagious diseases like diphtheria, scarlet fever and measles impressively remind the University authorities from time to time of the indispensable need of such an isolation ward for students in a city so small as Ithaca.

ENLARGEMENT OF THE CAMPUS

During the year the Trustees have purchased nearly 50 acres of land at a cost of $15,275 for the extension of the campus on the southeast. The campus, by resolution of the Trustees adopted in February, was enlarged so as to include the entire tract lying between Cascadilla and Fall Creek gorges from Stewart Avenue on the west to the Judd's Falls Road on the east; and the Executive Committee afterward pushed the southern boundary beyond Cascadilla Gorge to the E. C. & N. railway. The distance north and south is about five eighths of a mile and the distance east and west is about a mile; and the entire area (including the extension beyond Cascadilla gorge to the E. C. & N. railway track) is 350 acres.

Twenty or twenty-five years ago the buildings of the University were grouped mainly about Central Avenue. Then came the development of East Avenue for the houses of professors. On the east side of East Avenue were located in 1895 the buildings of the New York State Veterinary College with the object of removing them from the campus while still rendering them visible from it. Then at the urgent request of the President, the Trustees spent $100,000 in the purchase of the vacant field of seventeen acres which separated on the west the University from the built-up portions of the city, thus shifting the western boundary of the University estate to Stewart Avenue. In the last few years the building of Stimson Hall, Goldwin Smith Hall and Rockefeller Hall have brought East Avenue into the heart of the campus; and the grant of 57 acres east of Garden Avenue for a playground and athletic field and the location immediately north of it of the buildings of the College of Agriculture, once more pushed the centre of gravity of the University farther to the east. Then it was felt as never before that the University should own the strip of land lying between the southern boundary of the playground and Cascadilla Creek; and the purchase mentioned above not only accomplished that object but secured also additional land on the other side of the stream. This insures the preservation of the whole stretch of Cascadilla gorge from the western limit of the campus eastward to Judd's Falls, while the purchase of the Blair farm for the College of Agriculture also protects the gorge a long way above those Falls.

The Brooklyn alumni have raised money to make the beauty and glory of Fall Creek gorge more accessible to students from the campus, and the work is in charge of Professor Rowlee, the intelligent and sympathetic Superintendent of Grounds. Professor Rowlee's tentative ideas in regard to the development of the enlarged campus are set forth in the following extract from his report:

> "The approaches to the University from the west or city side are fixed and there is little likelihood, as there is little necessity, for change in these approaches. The approaches from the east consist (1) of the Fall Creek road coming in from Forest Home and beyond; and (2) of the Dryden road coming in along Cascadilla Creek. When these are improved, as presumably they will be by the State, under the good roads law, slight deviation in location may be made to improve the grades, but otherwise they are fixed approaches, and must become in future years the main entrances to the University

from the east. Recently Mr. Manning has pointed out that it would be of advantage to the University to lay out, primarily for its own use, drives along the top of the bluffs, both on the Fall Creek and Cascadilla sides of the campus, thereby providing access to the farming land of the University without having it cut up by cross roads. This seems to the writer a very excellent suggestion, and in accordance with it he hopes that the Agricultural College will find it practicable to lay its drive easterly from the Agricultural College buildings along the top of the bluff north of the Carnegie Filter Plant, thence out to the site for the new barns rather than to bring their road down near the new athletic field and in front of the University buildings. Also the plan of Mr. Manning would apply very well indeed to the Cascadilla system whereby a road could be laid along the top of the bluffs near Kite hill and along the southerly edge of the athletic field out to the easterly section of the farms. Under this plan the pasture field recently acquired from Mr. Cornell and proposed by him as an arboretum, could be utilized as a buffer to prevent promiscuous flocking of crowds into the athletic field from the south side. This general system of roads already largely in use but supplemented in the way indicated by Mr. Manning, and outlined above, would form what he described as the outlying general road system to approach the University from the east, and would serve in future as the main lines of travel from the University grounds. Our avenues, Stewart, West, Central, East and Garden Avenues, will serve as secondary lines of travel and they must be maintained in such condition as to accommodate heavy traffic to the University buildings. Finally, it is the writer's opinion that the cross lines or drives by which communication is carried between the last mentioned avenues might well be secured by narrow drives that would serve at the same time for walks. The general contour of the campus does not lend itself to the building of avenues east and west. The only place where it is practicable would be from the front of the Veterinary College westerly, where Cornell Avenue has been proposed by several landscape artists, and even in this place it is the writer's opinion that a fourteen foot driveway walk, paved so as to also serve as a walk, will serve all the purposes equally well."

FINANCES

Excluding the Medical College in New York City, the productive funds of the University amounted on August 1, 1908, to $8,628,370.31. The corresponding figures for August 1, 1907, were $8,550,916.84. The productive funds are invested as follows: In municipal bonds, $1,419,400; in State of New York scrip, $688,576.12; in foreign government bonds, $386,280; in national bank stock, $73,000; in steam railroad bonds, $1,414,100; in steam rail-

road equipment notes, $405,000; in traction bonds, $784,500; in miscellaneous corporation bonds, $1,331,500; in stock other than national bank, $253,100; in loans on collateral, $164,240; in real estate mortgages, $1,324,217.66; in land contracts, $103,525.54; in real estate, $104,085.38; in special deposits, $26,983.90; in advances, $144,799.33; in cash $5,062.38. The most marked changes in these investments during the year is an increase in steam railroad bonds from $1,019,500 to $1,414,100, and a decrease in real estate mortgages from $1,515,538.48 to $1,324,217.66.

The rate of interest upon invested funds (including cash) actually received during the past year averaged five per cent. This rate was credited on special funds, the five per cent for the surplus or insurance account being deducted only from the general university funds, on which the rate credited was 4.83 per cent.

The Treasurer's Report shows that there were sold or paid off during the year to August 1, 1908, bonds, notes, stocks, etc. amounting to $830,255.42. During the same period purchases were made of bonds, notes, stocks, etc., as follows:

Florida East Coast Ry. Co., Col. Tr. 6% Bds.	$ 30,000 00
Reading Co., 1st Pfd. 4% Stock	15,000 00
Ithaca Gas Light Co., 5% Bonds..................	100,000 00
Great Northern Ry. Co., Pfd. 7% Stock...........	10,000 00
Central Leather Co., 1st Lien 5% Bonds	20,000 00
U. S. Steel Corp., Sinking Fund 5% Bonds	75,000 00
N. Y. Central & H. R. R. R. Co., Stock	20,000 00
Delaware & Hudson Co., Con. 4% Bonds..........	50,000 00
Pennsylvania R. R. Co., Con. 3½% Bonds	25,000 00
N. Y., N. H. & Hartford Co., Stock	20,000 00
Union Pacific R. R. Co., Con., 4% Bonds..........	65,000 00
Southern Pacific R. R. Co., 1st Rfdg. 4% Bds	25,000 00
St. Louis, Iron Mt. & Southern Gen'l 5% Bds	40,000 00
Lake Shore & Mich. So. Gen'l. Con. 4% Bds	10,000 00
Chesapeake & Ohio 1st Con. 5% Bonds	10,000 00
N. Y., N. H. & Hartford 6% Con. Deb	6,600 00
New York Central Lines 5% Equip. Notes	25,000 00
Green Bay Gas & Elec. Co., 1st & Rfd. 5% Bds.....	9,000 00
Wabash R. R. Co., 4½% Equip. Notes	30,000 00

First National Bank Ithaca, Stock	$ 10,000 00
Butte Electric & Power Co., 5% Bonds	21,000 00
Chicago, St. Paul & Minn. Ry. Co., 1st 6% Bds.	12,000 00
Missouri, Kansas & Texas of Texas 1st 5% Bds	25,000 00
Pacific Light & Power Co., 1st 5% Bonds	25,000 00
Missouri, Kansas & Oklahoma 1st 5% Bonds	10,000 00
Missouri, Kansas & Eastern 1st 5% Bonds	25,000 00
Interborough Rapid Tran. Co., Con. 6% Notes	50,000 00
New York and Jersey R. R. Co., 1st 5% Bonds	25,000 00
Nassau Light & Power Co., 1st 5% Bonds	25,000 00
Pennsylvania R. R. Co., Conv. 4% Bonds	1,000 00
Chicago, Burlington & Quincy Gen'l 4% Bds	50,000 00
Knickerbocker Trust Co., Stock	5,000 00
Chicago Railways Co., 1st 5% Bonds	50,000 00
Central Coal & Coke Co., Gen'l 6% Bonds	20,000 00
Missouri Pacific Ry. Co., Con. 1st 6% Bonds	10,000 00
	$ 946,600 00
Sundry Bonds & Mortgages	49,500 00
Western Land Contracts—Sales during year	7,063 65
Increase Campus Cottage Account	1,545 24
	$1,007,708 89

Among the donations received during the year were $298.01 from the Briar Cliff School of Agriculture, $200 from the American Peony Society, $423.40 from the students for the Chi Psi memorial window in Sage Chapel, $841.73 from Mr. C. G. Goodspeed for an X-Ray apparatus, $78,122.11 from Mrs. Nancy G. Howe for the student loan fund, $8,000 from the York Manufacturing Company for an ice plant for Sibley College, $4,000 from Professor W. D. Bancroft for equipment in the laboratory of physical chemistry, and $100 from the Brooklyn Alumni for improvements in the Fall Creek Gorge.

The unlimited munificence of Colonel Payne towards the Medical College in New York City has been exhibited in the same generosity as during the preceding years of the decade since the College has been established.

The revenues and expenditures of the University for the year 1907-1908 are exhibited in the following condensed statement taken from the Treasurer's report:

CONDENSED AND COMBINED INCOME STATEMENT

	University at Ithaca	University at New York	State Veterinary College	State Agr. College	Total
Tuition	$ 290,373 64	$ 24,410 00	$ 1,122 50		$ 315,906 14
Summer Session	20,200 00				20,200 00
Laboratory and other fees	73,925 79	13,528 33	2,309 60	10,165 59	99,929 31
Total from Students	384,499 43	37,938 33	3,432 10	10,165 59	436,035 45
From gen'l invested funds	409,354 87	8,586 06			417,940 93
From special invested funds	10,894 88				10,894 88
Sage College and Cottage	13,842 75				13,842 75
Rents of Buildings and Cottages	8,652 33		80 00		8,732 33
Infirmary	4,772 24				4,772 24
From U. S. or State of N. Y.	30,000 00		30,000 00	150,000 00	210,000 00
Agr. Exp. Sta.	22,334 84				22,334 84
Miscellaneous	632 81	141,128 47		6,815 10	148,576 38
Departmental (not from Students)	2,318 48	3,959 64	1,516 50	63,501 19	71,295 81
Unusual Items	5,492 43	2,031 54			7,523 97
Net Transfer from Surplus	4,549 01				4,549 01
	$ 897,344 07	$ 193,644 04	$ 35,028 60	$ 230,481 88	$ 1,356,498 59

CONDENSED AND COMBINED EXPENSE STATEMENT

	Ithaca	New York	Veterinary	Agriculture	Total
Salaries	$ 443,880 06	$ 143,959 09	$ 23,746 89	$ 63,418 74	$ 675,004 78
Departments	107,955 11	39,095 60	5,472 06	118,390 49	270,913 26
General Exp.	97,464 05	24,558 09	1,389 08	39,348 83	162,760 05
Fellowships, Scholarships and Loans	32,583 21	500 00			33,083 21
Sage College and Cottage	12,591 73				12,591 73
Summer Session	20,024 63				20,024 63
Agr. Exp. Sta.	21,697 46				21,697 46
Library	41,386 38				41,386 38
New Buildings	59,746 44				59,746 44
Extraordinary Repairs	29,321 98				29,321 98
Income transferred to Principal	10,894 88				10,894 88
Mrs. Fiske Memorial	7,387 63				7,387 63
Miscellaneous	17,276 12		204 63	5,809 62	23,290 37
Real Estate	20,275 00				20,275 00
	$ 922,484 68	$ 208,112 78	$ 30,812 66	$ 226,967 68	$1,388,377 80

These tables call for little explanation. It will be observed that the item of $10,894.88 appearing in the statement of income as derived from "special invested funds" is balanced by the same amount in the statement of expenses as "income transferred to principal." Of the $59,746.44 spent on new buildings, $50,000 was spent on Goldwin Smith Hall and $9,746.44 in completing Rockefeller Hall. The item of $29,321.98 for "extraordinary repairs" is only about half of the corresponding item in last year's report. It is made up of the following charges: converting old dynamo laboratory into the University repair shop, $2,436; relaying steam mains in concrete conduits, $10,095.05; changes in Morrill Hall, $7,071.75; fitting the former archæological museum in McGraw Hall for use of geological department, $7,044.01; changing part of the first and second floors of White Hall to accommodate the mathematical department, $1,210.96; changes in Lincoln Hall, $673.28; and completing changes in stacks in Library basement $790.93.

The expenditure of $20,275 for real estate was incurred in the purchase of a part of the Curran farm and the Dwyer Mill property adjoining Cascadilla Gorge, which were secured at a combined cost of $15,275 and are intended as an enlargement of the campus, and also of the Ellis-Brown farm, which was purchased at a cost of $5,000 for the use of the State Veterinary College. The "miscellaneous expenditures" aggregating $17,276.12 include annuities paid under the will of Willard Fiske and others, $5,475; motor lawn mower, $1,253.76; Garden Avenue construction, $1,972.05; house for fire apparatus and hook and ladder truck, $2,747.24; Beebe Dam alteration, $2,604.08; Ten Year Book, $900; Professor Thurston Memorial, collected by subscription for the purpose, $1,590.68.

The appropriations made to departments aggregate $107,955.11. These appropriations are used for the purchase of apparatus, materials and facilities for instruction and research. A considerable portion of this outlay is repaid in the form of student fees, the chemical department alone turning into the treasury last year the sum of $22,782.79 from this source. The item of $97,464.05 for "general expenses" embraced a variety of objects, of which the most important are the following: care of buildings, $9,850; care of grounds, $6,500; electric service, $6,067.53; fuel, $14,904.95; heating labor, $2,896.20; repairs, $16,217.70; water works, $1,851.62; Infirmary, $10,038.85; printing and stationery, $5,000; Register, $4,500; Sage Chapel sermons, $3,300; Arts and Sciences, announcements and office, $975.69; attorney's fees and expenses, $2,000; advertising and lectures, $600; insurance, $535.06; reading entrance examination papers, $500; Sage Chapel expense, $686.60; contingent expenses (miscellaneous items), $10,783,75.

It may be added in this connection that apart from the lands mentioned in the preceding paragraph the University purchased during the year other farm lands to the value of $28,457.67 for the use of the State College of Agriculture. These, however, were not charged to expense for the current year, but were carried in the capital account as an advance to be extinguished by the annual appropriation which the University makes from its own treasury to the State College of Agriculture.

As the preceding table shows, the additional real estate which was charged to current expense amounts to $20,275. But for this purchase of real estate the accumulated deficit of the University would have been diminished by about $8,000. As it is, however, that deficit has been increased from $86,260.06 on August 1, 1907, to $98,454.79 on August 1, 1908. Of this accumulated deficit it will be recalled that $72,645.08 is an inheritance from the disastrous epidemic year of 1903.

The inventoried value of the University grounds and buildings is $4,263,405.07, of which the buildings of the State Veterinary College represent $135,000, the buildings of the State College of Agriculture $275,000, and the buildings of the Medical College in New York City $1,045,000. In this aggregate of $4,263,405.07 for real estate the value of the campus and adjoining lands of the University is fixed at $260,627.25. The most costly building on the campus is the Goldwin Smith Hall, which cost $353,550.25, then the Library building, which cost $296,020.90, next Rockefeller Hall, which cost $274,494.01, next Sibley College, which cost $218,361.56, and next Sage College, which cost $210,262.15 (all without equipment); there is no other building which cost over $200,000.

The equipment of the University is inventoried at $1,826,114.50, of which $28,793.52 represents the equipment of the State Veterinary College, $86,419.81 that of the State College of Agriculture, and $63,443.90 that of the Medical College in New York City.

NEEDS

The needs of the University have already been mentioned in connection with the different topics embraced in this Report. First and foremost let it be repeated, however, that an endowment for the augmentation of the present low salaries of professors and instructors, who are the vital and energizing soul of any university, is the greatest need of Cornell University, and next to it comes the need of a system of residential halls and commons for the students. After these in order of importance, though equally urgent for the conduct of the work of the University, must be mentioned the need of a general assembly hall capable of accommodating the entire student body. A new and greatly enlarged armory, a new laboratory for veterinary clinics, a new testing and experimental laboratory in civil engineering, new machine shops in mechanical engineering, and an enlargement of the chemical laboratory, if not an entirely new establishment. To these should be added provisions for the endowment of research and investigation in the fields of physical science and humane culture.

The great increase in the number of students taking work in chemistry has created serious embarrassment. Students desirous of electing the work this year were in some cases excluded from the laboratory for the reason that it was already overcrowded and if the attendance of students in the University increases in 1908–1909, an appreciable number of them may find it impossible to secure instruction in chemistry, even though that subject be part of their prescribed curriculum, as it is, for example, in Agriculture and Engineering and to some extent in Arts also. The one effective remedy is a new building for the department. Morse Hall, which is now devoted to chemistry, would then be available for the relief of the Engineering Colleges. A new chemical laboratory entirely adequate for the purpose would cost from $300,000 to $400,000. The site for it is undoubtedly the area north of Reservoir Avenue and east of East Avenue, at the centre of which stands the house now occupied by the President of the University.

To men and women of wealth who seek investments for their surplus capital which shall further the highest ends of civilization, and to the people and legislature of the State of New York who are already so deeply committed to the support of the work which Cornell University is endeavoring to do for the intellectual and scholastic interests of the State, the President earnestly appeals for aid to enable the University to continue, enlarge and improve its work in response to the increasing needs and the growing demands of the new century and the rising generation.

JACOB GOULD SCHURMAN,
President.

APPENDIX I

CHANGES IN THE STAFF OF INSTRUCTION

The following new appointments were made during the year 1907–1908:

C. A. Martin, Director of the College of Architecture, February 22, 1908.

A. Hayes, Jr., Professor of Law, October 26, 1907.

J. L. Stone, Professor of Farm Practice, October 26, 1907.

J. E. Rice, Professor of Poultry Husbandry, October 26, 1907.

M. W. Sampson, Acting Professor of English Literature, Second Term, December 18, 1907.

A. L. Andrews, President's Secretary and University Publisher, October 2, 1907.

B. F. Kingsbury, Secretary of the Ithaca Division of the Medical College, Second Term, January 14, 1908.

A. C. Phelps, Secretary in charge of the College of Architecture, Second Term, February 4, 1908.

C. A. Publow and A. R. Mann, Assistant Professors of Dairy Industry, February 22, 1908.

E. W. Rettger, A. C. Irwin, W. E. Piper, R. G. Marvin, J. S. Staudt, L. V. Edwards, D. Moomaw, J. V. Howe, H. E. Chandler, L. A. Lawrence, F. D. Sheffield, P. H. Underwood, J. C. McCurdy, S. B. Lilly, S. L. Chaffee and W. Neilson, Instructors in Civil Engineering, October 2, 1907.

F. H. Dunbar and W. D. Kendrick, Instructors in Experimental Engineering, October 2, 1907.

M. Ventura, Instructor in Romance Languages, October 2, 1907.

H. W. Redfield and G. E. F. Lundell, Instructors in Chemistry, October 2, 1907.

W. A. Downes, Instructor in Surgery, October 2, 1907.

E. R. Minns, Assistant Farm Manager and Instructor in Farm Practice, October 29, 1907.

H. B. Brown, Instructor in Botany, February 4, 1908.

S. Milbank, Instructor in Therapeutics, February 4, 1908.

G. R. McDermott, Jr., Instructor in Power Engineering, February 18, 1908.

F. Rose, Lecturer on Home Economics, October 2, 1908.

E. F. Rathjen and D. S. Pratt, Assistants in Chemistry, October 2, 1907.

A. C. Weed, Assistant in Neurology and Vertebrate Zoology, October 2, 1907.

J. B. Hill and E. J. Petry, Assistants in Botany, October 2, 1907.

L. N. Case and A. G. Hall, Demonstrators of Comparative Veterinary Anatomy, October 2, 1907.

E. D. Dean, Assistant in Histology and Embryology, October 2, 1907.

W. H. Shideler and R. D. Schrock, Assistants in Physiology and Pharmacology, October 2, 1907.

E. Taylor, Assistant in Histology, October 2, 1907.

J. B. Gore, Assistant in the Pathology and Histology of the Nervous System, October 2, 1907.

J. H. Richards, Assistant in Clinical Pathology, October 2, 1907.

F. M. Paul, Demonstrator of Anatomy, October 2, 1907.

L. C. Davie, Assistant in Veterinary Anatomy, October 15, 1907.

G. W. Tailby, Jr., Stockman and Instructor in Animal Husbandry, October 15, 1907.

W. G. Krum, Superintendent in the Poultry Department, October 15, 1907.

C. Nixon, Assistant in Poultry Husbandry, October 15, 1907.

H. J. Moore, Gardener in the Horticultural Department, October 15, 1907.

J. R. Pawling, Assistant in Physiology and Pharmacology, October 15, 1907, transferred to Department of Histology and Embryology, February 4, 1908.

G. F. Rogalsky, Assistant in Modern European History, October 15, 1907.

E. J. Bailey and A. W. Craver, Assistants in English, October 15, 1907.

C. D. Cass, Mechanician in the College of Civil Engineering, October 15, 1907.

R. Ford, E. E. Bragg and R. P. Anderson, Assistants in Chemistry, October 29, 1907.

B. S. Bell, Assistant in Economics, October 29, 1907.

L. Hooper, Assistant in the Wood Shop, October 29, 1907.

E. S. Savage, Assistant in Animal Husbandry, October 29, 1907.

M. B. Cummings, Assistant in Horticulture, October 29, 1907.
R. A. Cook, Assistant in Physiology, November 5, 1907.
I. Perrine, Laboratory Assistant in Physical Geography, November 12, 1907, and Assistant in Geology, Second Term, February 4, 1908.
T. W. B. Welsh, Assistant in Chemistry, November 26, 1907.
C. A. Publow, Assistant in Cheese Making, Winter Course, November 26, 1907.
B. W. Somers, Assistant in the Poultry Husbandry Department, November 26, 1907.
S. H. Perky, Research Assistant in Rural Economy, December 30, 1907.
W. B. White, Assistant in Chemistry, January 14, 1908.
W. Wilson, Assistant in Pharmacology, January 14, 1908.
L. Knudson, Assistant in Plant Physiology, January 14, 1908.
E. H. Nichols, B. J. Lemon and H. N. Frear, Assistants in Chemistry, February 4, 1908.
J. W. Wells, Assistant in Physical Culture, February 4, 1908.
W. M. Baldwin, Assistant in Histology and Embryology, February 4, 1908.
J. H. Scott, Assistant in Chemistry, February 10, 1908.
D. Miller, Assistant in Chemistry, Feburary 18, 1908.
W. E. Godfrey and H. P. Gage, Assistants in Physics, March 17, 1908.
E. A. Reinoso and A. H. Rahe, Assistants in Pathological Chemistry, March 17, 1908.
H. R. Muller, Assistant in Neurology and Vertebrate Zoology, April 14, 1908.
S. P. Beebe, Assistant in Experimental Pathology, April 14, 1908.

SUMMER SESSION, 1908

L. A. Bacon, Supervisor of Manual Training, Indianapolis.
W. W. Clendenin, High School Teacher in Geography, New York City.
L. A. Darling, Assistant Professor of Machine Design.
H. Davidsen, Instructor in German.
T. G. Delbridge, Instructor in Chemistry.
W. J. Fisher, Instructor in Physics.
R. C. Gibbs, Instructor in Physics.
B. N. Howe, Assistant in Machine Shop.
L. S. Hawkins, Assistant in Botany.

J. P. Jensen, Assistant in Zoology.
C. H. Ibershoff, Instructor in German.
G. E. F. Lundell, Instructor in Chemistry.
P. R. Mann, Teacher of Biology.
J. L. Meriam, Professor of Education, University of Missouri, Columbia.
W. H. Pyle, Assistant in Psychology.
I. Perrine, Instructor in Physical Geography.
B. A. Place, Assistant in Biology.
F. K. Richtmyer, Instructor in Physics.
M. W. Sampson, Professor of English.
R. E. Seamon, Assistant in Wood Shop.
H. A. Sill, Assistant Professor of History.
J. W. Turrentine, Assistant in Chemistry.
P. H. Underwood, Instructor in Civil Engineering.
J. H. VanSickle, Superintendent of Instruction, Baltimore.
J. E. Vanderhoef, Foreman in Manual Training Department.
O. D. VonEngeln, Instructor in Geography.
C. W. Waggoner, Assistant in Physics.
W. M. Wilson, Instructor in Meteorology.
J. A. Woodburn, Professor of History and Political Science, Indiana University, Bloomington.

The following appointments were made up to and including July 7th, 1908, to take effect at the beginning of the academic year 1908–1909:

V. A. Moore, Director of the New York State Veterinary College, February 22, 1908.
C. H. Hull, Dean of the Faculty of Arts and Sciences, April 14, 1908.
G. E. Woodberry, Acting Professor of English Literature (to the Christmas recess), February 22, 1908.
B. F. Kingsbury, Professor of Histology and Embryology, February 22, 1908.
W. A. Hammond, Sage Professor of Ancient Philosophy, February 22, 1908.
R. A. Hatcher, Professor of Pharmacology and Materia Medica, February 22, 1908.
E. L. Phillips, Professor of Military Science and Tactics, March 17, 1908.
H. N. Ogden, Professor of Sanitary Engineering, June 18, 1908.

V. Karapetoff, Professor of Experimental Engineering with special reference to Electrical Engineering, June 18, 1908.

D. A. Molitor, Professor of Topographic and Geodetic Engineering, June 18, 1908.

J. E. Trevor, Professor of Thermodynamics, June 18, 1908.

S. Simpson, Professor of Physiology, June 18, 1908.

D. H. Udall, Acting Professor of the Principles and Practice of Veterinary Medicine, June 18, 1908.

J. Law, Professor of the Principles and Practice of Veterinary Medicine, Emeritus, June 18, 1908.

S. H. Gage, Professor of Histology and Embryology, Emeritus, June 18, 1908.

J. P. Harris, Secretary of the University and University Publisher, May, 1908.

C. L. Durham, Secretary of the Administrative Board in charge of Freshmen and Sophomores in the College of Arts and Sciences, May 12, 1908.

S. H. Burnett, Assistant Professor of Comparative Veterinary Pathology, May 12, 1908.

W. M. Sawdon, Assistant Professor of Mechanical Engineering, May 26, 1908.

W. S. Ford, Assistant Professor of Electrical Engineering, May 26, 1908.

S. L. Boothroyd, Assistant Professor of Topographic and Geodetic Engineering, May 26, 1908.

E. W. Rettger, S. G. George and C. L. Walker, Assistant Professors of Applied Mechanics, May 26, 1908.

K. B. Turner, Assistant Professor of Hydraulics, May 26, 1908.

C. D. Albert, Assistant Professor of Machine Design, May 26, 1908.

J. A. Bizzell, Assistant Professor of Soil Investigation in the Federal Experiment Station, June 2, 1908.

P. J. White, Assistant Professor of Farm Crops, June 2, 1908.

C. A. Rogers, Assistant Professor of Poultry Husbandry, June 2, 1908.

J. C. Johnston, Assistant Professor of Dermatology, June 17, 1908.

O. H. Schultze, Assistant Professor of Pathological Anatomy, June 18, 1908.

J. S. Ferguson, Assistant Professor of Histology, June 18, 1908.

W. J. Elser, Assistant Professor of Bacteriology, June 18, 1908.

A. Hunter, Assistant Professor of Biochemistry, June 18, 1908.

C. F. Tucker Brooke, Instructor in English (from January 1, 1909), May 21, 1908.
F. H. Hankins, Instructor in Political Economy and Statistics, May 21, 1908.
F. A. Molby, G. W. Nasmyth, A. A. Somerville and O. Tugman, Instructors in Physics, May 21, 1908.
F. H. Shetterly, Instructor in Chemistry, May 21, 1908.
C. A. Stewart, Instructor in Geology, May 21, 1908.
J. P. Schaeffer, Instructor in Medical Anatomy, May 21, 1908.
W. A. Hilton, Instructor in Histology and Embryology, May 21, 1908.
R. E. Backus, Instructor in Architecture, May 21, 1908.
W. C. Capron, Instructor in Machine Design, May 21, 1908.
G. D. Conlee, Instructor in Experimental Engineering, May 21, 1908.
M. C. Ernsberger, Instructor in Power Engineering, May 21, 1908.
W. L. Head, Foreman of Forge Shop, May 21, 1908.
J. N. Frost, Instructor in Clinical Veterinary Surgery, May 21, 1908.
A. H. Wright, Instructor in Neurology and Vertebrate Zoology, May 26, 1908.
I. Perrine, Instructor in Geology (Second Term), May 26, 1908.
L. Knudson, Instructor in Plant Physiology, June 2, 1908.
D. Reddick, Instructor in Plant Pathology, June 2, 1908.
G. A. Crabb, Instructor in Soils, June 2, 1908.
L. D. Batchelor, Instructor in Horticulture, June 2, 1908.
E. S. Savage, Instructor in Animal Husbandry, June 2, 1908.
J. Bauer, Instructor in Economics, June 9, 1908.
W. T. Spivey, Instructor in Civil Engineering, June 9, 1908.
M. Warren, Instructor in Clinical Pathology, June 17, 1908.
W. D. Tyrrell, Clinical Instructor in Pediatrics, June 17, 1908.
E. Taylor, Instructor in Histology, June 17, 1908.
C. R. Stockard, Instructor in Comparative Morphology, June 17, 1908.
L. Jaches, Instructor in Microphotography, June 17, 1908.
P. A. Shaffer, Instructor in Experimental Pathology, June 17, 1908.
A. S. Armstrong, Clinical Instructor in Surgery, June 17, 1908.
F. R. Holbrook, Clinical Instructor in Surgery, June 17, 1908.
A. E. Chase, Instructor in Materia Medica, June 17, 1908.
R. Matthews and A. G. Kessler, Instructors in Power Engineering, July 7, 1908.
M. L. Lovell, Instructor in Experimental Engineering, July 7, 1908.
G. W. Lewis and J. F. Stevens, Instructors in Machine Design, July 7, 1908.

C. F. Clark, Instructor in Plant Breeding, July 7, 1908.
F. C. Church, Assistant in Mediæval History, May 21, 1908.
F. A. Cleveland, Assistant in Modern European History, May 21, 1908.
H. W. Martin, Assistant in American History, May 21, 1908.
J. G. Lapp, Assistant in Politics, May 21, 1908.
T. G. Durkan, C. W. Parker and J. R. Turner, Assistants in Economics, May 21, 1908.
H. Fitzpatrick and W. Moore, Assistants in Botany, May 21, 1908.
D. W. Hallock, Assistant in Physical Geography, May 21, 1908.
A. S. Galadjikian, Assistant in Physics, May 21, 1908.
L. Pumpelly, M. E. Holmes and A. E. Houlehan, Assistants in Chemistry, May 21, 1908.
H. R. Standiford, C. W. Fitch, C. A. Lyerly, Jr., C. E. Chase, B. B. Ramey and F. S. Marlow, Assistants in Military Science and Tactics, May 21, 1908.
L. Richardson and J. E. Cuff, Assistants in Physical Culture, May 21, 1908.
E. A. Almgren, Medical Examiner, Sage College Gymnasium, May 21, 1908.
C. H. Waters, Assistant in Histology and Embryology, May 21, 1908.
G. D. Gates, Assistant in Machine Design, May 21, 1908.
I. Buchanan and C. J. Miller, Demonstrators in Veterinary Anatomy, May 21, 1908.
F. S. Wood and F. E. McClelland, Demonstrators in Veterinary Physiology and Pharmacology, May 21, 1908.
L. Haseman, Assistant in Entomology, June 2, 1908.
M. F. Barrus, Assistant in Plant Pathology, June 2, 1908.
A. J. Lotka, F. R. Nitchie and F. R. Perrine, Assistants in Physics, June 17, 1908.
E. Eliot, Lecturer on Surgery, June 17, 1908.
C. G. Burdick, W. F. Burrows and C. E. Farr, Assistants in Anatomy, June 17, 1908.
E. Hand, Clinical Assistant in Medicine, June 17, 1908.
M. A. Lane, Assistant in Histology and Embryology, July 7, 1908.
S. C. Hatch, Assistant in Machine Shop, July 7, 1908.
R. L. Cochran, Assistant in Machine Design, July 7, 1908.
E. Sunderville, Assistant in Veterinary Anatomy, July 7, 1908.
H. O. Taylor, Assistant in Physics, July 7, 1908.
L. J. Cross, Assistant in Agricultural Chemistry, July 7, 1908.

M. M. McCool, Assistant in Plant Physiology, July 7, 1908.

H. H. Love, E. P. Humbert, A. W. Gilbert and F. J. Pritchard, Assistants in Plant Breeding in the Federal Experiment Station, July 7, 1908.

H. W. Teeter, Superintendent of Plant Breeding Work in the Federal Experiment Station, July 7, 1908.

H. W. Conn and J. O. Morgan, Assistants in Soil Investigation in the Federal Experiment Station, July 7, 1908.

M. B. Garrett and H. R. Weaver, Assistants in Reference Department of Library, June 9, 1908.

C. Woodyard and D. S. Cutter, Assistants in Law Library, June 17, 1908.

E. Hickman, Assistant to Warden of Sage College, June 17, 1908.

C. N. Thurber, Assistant to Registrar, June 22, 1908.

E. Sprigg, Superintendent of Buildings, June 2, 1908.

APPENDIX II

REPORT OF THE DEAN OF THE UNIVERSITY FACULTY

To the President of the University:

SIR:—I have the honor to submit my sixth annual report as Dean of the University Faculty. The subject matter is arranged with reference to the work of the committees of which the Dean is ex-officio chairman, and with reference to such functions as have been especially assigned to him by the Faculty.

During the past year the University was called upon to mourn the death of George Chapman Caldwell, one of the members of the first Faculty of Cornell University and at the time of his death emeritus professor of chemistry. The following resolutions of respect and condolence were spread upon the minutes of the Faculty and communicated to the family:

"The Faculty of Cornell University inscribes the following tribute to the memory and worth of the late George Chapman Caldwell, Professor of Agricultural Chemistry in the institution from its inauguration in 1868 up to his retirement as emeritus in 1902, of Analytical Chemistry since 1875 and of General Chemistry since 1891.

"Educated in Harvard and Göttingen, after a teaching experience in Antioch College, O., and the Agricultural College of Pa., he was the first professor appointed to the Faculty of Cornell, where he presided for 34 years over the Chemical Department, while it grew from a small class room and laboratory until it taxed the capacity of two large buildings with a teaching staff of 21—one of the leading centers of chemical education and achievement in the world.

"In the chemical profession he early took high rank, his book on agricultural chemical analysis, the first work on that subject in English, was at once accepted as an authority and aroused an active interest in the important field which had been so brilliantly exploited by Liebig in Germany. His text books on analytical chemistry received a correspondingly wide appreciation and adoption.

"It was characteristic of Professor Caldwell that he kept himself in closest touch with all advances in a rapidly developing and almost illimitable subject, and unfolded this to his students in class room and laboratory, inculcating and enforcing such precision of method and thoroughness as would make all work of a full and permanent value. The many students, trained under him, and who now occupy prominent positions in teaching, in government service, in agricultural experiment stations and in collegiate and industrial positions, and their uniform success, bear forcible testimony to the efficiency and value of Professor Caldwell's teaching.

"His varied and comprehensive acquaintance with all divisions of the field of chemistry and the critical acumen with which he had worked out each subject received deserved recognition when, in 1892, he was elected to the presidency of the American Chemical Society.

"This great capacity for accurate and excellent work was early recognized by the Faculty, in which he served as Secretary from 1872 to 1886. The intimate acquaintance thus secured with all departments of the University work rendered him a trusted and valued adviser in all matters of university policy.

"Not of an assertive nature Dr. Caldwell stood out as a great man on the basis of strenuous work, thoroughness in every detail, accuracy in every result, and a sound judgment in seeking and arriving at the truth.

"His social life harmonized with his professional. His was the quiet, abiding friendship, the valued advice, the sterling example, the safe guidance. His students owed their prospects in life no less to this worthy influence than to the great excellence of his instruction, and everywhere they unite in thankfulness that they were brought under the influence of such a man. His name is to us a memory of one of the early builders of the University, a man deeply imbued with the scientific spirit, one who inspired his students to their best efforts in spite of the personally unostentatious disposition, a sincere lover of truth, and a worker who never wearied in well-doing.

JAMES LAW,
B. G. WILDER,
L. M. DENNIS."

The year was also marked by the death of William Arnold Anthony, for fifteen years professor of physics in Cornell University. A memorial service was held in Sage Chapel on June 12th and the following resolutions were adopted by the University Faculty:

"*Whereas*, in the death of William Arnold Anthony, Ph.B., Professor of Physics in Cornell University from 1872–87, who departed this life on the 29th of May, 1908, in his 73rd year, many members of this Faculty who were his colleagues or his pupils have suffered a personal bereavement; and

"*Whereas*, he was a notable figure among the earlier engineers in America, a man of science, of rare gifts, a pioneer in technical and scientific education, a teacher almost unequaled in his power of inspiring and influencing his pupils and a man admired and beloved by all who knew him;

"*Be it resolved*, that we the members of the University Faculty desire to give expression to our sense of the great loss sustained by science and the cause of education in the death of this untiring devotee of sound scientific learning, whose long life was spent in the service of mankind; this strong hearted, generous, single-minded man, our former associate, whose friendship we have ever cherished and whose memory we delight to honor.

"*Be it further resolved*, that these resolutions be entered on the minutes of the Faculty and that copies be sent to the faculty of the Cooper Union, and to the surviving members of his family."

I. ADMISSION BY CERTIFICATE

During the year 1907–1908, the number of schools from which students were received by certificate was 223 and the number of students presenting certificates was 459. The number of schools whose students had no mark below a pass was 102 and the number of students admitted with no mark below a pass was 252. Thirteen schools received a general warning. Two were warned for special subjects and two were dropped from the list of accredited schools. Seven schools which were warned in February, 1906, and seven warned in February, 1907, which have not since that date sent students to the University, were continued as on probation.

In my last report I called attention to a movement for the creation of a board for accrediting schools in the middle states and Maryland. At its last meeting the Association of Colleges and Preparatory Schools of the Middle States and Maryland appointed a committee to call a meeting of delegates from the colleges in the middle states and Maryland, members of the Association, who desired to participate in the organization of a "College Entrance Certificate Board." This committee issued March 6, 1908, an invitation to Cornell University to take part in a meeting for the above mentioned purpose. This invitation was accepted and the Dean of the University was present at a meeting in Philadelphia on May 9th, when an organization was effected and a constitution adopted. At a subsequent meeting of the committee appointed for that purpose some rules of procedure were adopted. The constitution and rules of procedure will be submitted to the next meeting of the Association of Colleges and Preparatory Schools of the Middle States and Maryland, and, if adopted, will be referred to the colleges of that Association for their approval. It would not be proper here to enter into the details of the proposed "College Entrance Certificate Board." But it may be said that its purpose is the same as that of a similar organization in the New England states and in the states of the middle west. The board will decide the questions of the qualification of schools and their continuation upon the list of accredited schools and there will probably be a uniform certificate blank. It is not the purpose of the proposed board to interfere in any way with the College Entrance Examination Board or to favor admission by certificate rather than by examination, but merely to promote the efficiency of the present system in the case of colleges admitting students by certificate.

If the proposed board is approved by the Association of Colleges and Preparatory Schools of the Middle States and Maryland and subsequently by a majority of colleges in that Association, the individual colleges which now admit students on certificate will be relieved of many difficulties. The objection to admission by certificate so far as Cornell University is concerned has never been on account of the scholarship of the students admitted by certificate, but almost exclusively on the ground of the difficulty of administering the system. The friction between the University and the schools has at times been considerable and disagreeable. This will, of course, be wholly removed when schools are placed upon the accredited list and removed from it by a board which also prescribes the form of certificate and the rules and regulations for its use. With a view to securing a uniform certificate blank, the chairman of the Committee on Admission by Certificate has entered into correspondence with the various departments in the University which have special requirements for admission, such as the submission of notebooks, detailed statement of studies, names and amount of authors read, etc. It seems probable that in most cases these special requirements will be relinquished and the statement of the school accepted.

2. COMMITTEE ON STUDENT AFFAIRS

At a meeting of the University Faculty held November 8, 1907, a resolution was introduced abolishing the Committee on Student Conduct and the Committee on Student Organizations and substituting for these two committees a committee to be designated Committee on Student Affairs. On the 10th of January, 1908, the Faculty voted that the Committee on Student Conduct be abolished and that its functions, the Trustees consenting, be transferred to the Committee on Student Organizations "whose title is hereby changed to read: The Committee on Student Affairs." The new committee was appointed by the President at the meeting of February 14, 1908, under a resolution presented to the Faculty on December 13, 1907, and passed January 10, 1908. The resolution in question is as follows:

"*Resolved*, that the following standing committees of the University Faculty, namely, Admission by Certificate, Graduate Work and Advanced Degrees, Scholarships and Student Organizations be re-constituted as follows:

"1. Each of these committees shall consist of the Dean, ex-officio, and eight members of the University Faculty to be appointed by the President upon the adoption of this resolution.

"2. Of the eight members to be thus appointed, two shall be appointed to serve until November 1st, 1908, two until November 1st, 1909, two until November 1st, 1910 and two until November 1st, 1911.

"3. Vacancies to occur by the expiration of a term on November 1st of each year shall be filled by appointments to be made annually in October by the President.

"4. A member appointed for a full term of four years, or a member appointed to fill a term of more than one year shall not be eligible to renewed appointment at the end of that term.

"5. Vacancies occurring before the expiration of a term shall be filled by appointment by the President for the remainder of the unexpired term.

"6. In case of temporary inability to act, due to absence from the University or other cause, an *ad interim* appointment may be made by the President to be effective while the inability of the regular member continues."

It was understood that the Registrar should continue to act as before as secretary of the Committee on Admission by Certificate and the Committee on Student Affairs.

Since February 14, 1908, the functions formerly exercised by the Committee on Student Organizations and on Student Conduct have been discharged by the single Committee on Student Affairs.

The most important action of the year dealing with student organizations was that taken February 14, 1908, when the University Faculty on the recommendation of the Committee on Student Affairs adopted the following amendment to the Rules Governing Student Organizations:

"In applying Rule IIc to baseball, any person, who, after April 1st, 1908, plays under a name other than his own, or who plays in a contest at which an admission fee is charged except as a member or representative of a school or college team, shall be conclusively presumed to have violated this rule."

The following explanation of this action of the Faculty was made by the chairman of the Committee:

"For a long time the need has been felt of some way of enforcing the rule of the Brown Conference rendering ineligible those who have received remuneration for participation in any branch of sport. The principal difficulty occurs in summer baseball where the players receive remuneration directly or indirectly from the proceeds of the game.

"Owing to the circumstances under which these games are played it is in most cases impossible to establish the violation of the rule. Even where a student plays in such games without remuneration he is suspected of receiving it and discredit is thrown upon the college team on which he afterwards plays.

"The Faculty on the recommendation of the Committee on Student Affairs, (the former Committee on Student Organizations), has therefore adopted a rule creating a presumption arising from ascertainable facts which usually accompany a violation of the rule. There can be no justification for playing under an assumed name, and while a student may play without remuneration in games for which admission is charged, it is felt that for the sake of the reputation of the college all suspicion of the violation of the rule should be avoided."

The rule to which the amendment applies is IIc of the Rules Governing Student Organizations and reads as follows:

"II. Intercollegiate Athletic Contests in General.—No person shall represent the University in any intercollegiate athletic contest either at home or abroad;

"c. If he receives or has ever received any remuneration or consideration of any sort for his services in any branch, as performer, player, coach, or otherwise, apart from such necessary expenses as are actually incurred by him as a member of a college team, or of a permanent amateur organization in connection with occasional amateur contests."

The amendment is:

"In applying Rule IIc to baseball, any person, who, after April 1st, 1908, plays under a name other than his own, or who plays in a contest at which an admission fee is charged, except as a member or representative of a school or college team, shall be conclusively presumed to have violated this rule."

The action of the Committee so far as it relates to student conduct has consisted in investigating cases of fraud in examination and of other cases of violation of the University rules reported to the Committee. The behavior of the student body in general has been excellent and events like the freshman banquet and "Spring Day" passed off without disorder or objectionable features. While, as I have said, the behavior of the student body in general is exemplary, there is, unfortunately, a small number of students who bring discredit upon the University by their disorderly conduct and one event during the last year, namely, the senior banquet, was attended by most reprehensible conduct on the part of a considerable number of the class. The best method of dealing with this subject has occupied the attention of the Committee on Student Affairs and two plans have been suggested. One is the employment of a University officer who as proctor shall have certain powers and duties for the repression of disorderly conduct. The second method is to obtain, if possible, the cooperation of the student body by means of a general committee composed from the upper classes to act with the Committee on Student Affairs in matters dealing with student conduct. If the various student organizations now existing, fraternities, clubs, etc., should take a firm and decided stand in regard to the conduct of their members in public, a great deal would be accomplished. But, unfortunately, cases of fraud in examination and public intoxication are too often considered as venial offenses and no action whatever is taken by the organization to which the offender belongs. The large majority of students are in favor of honorable behavior within and without the University, and if their cooperation could be secured by the Committee on Student Affairs, the evils complained of could be largely abated, if not wholly abolished. The Committee on Student Affairs proposes at the beginning of the next academic year to meet with representatives of the various classes with the above ends in view. It is to be hoped that this movement may result in the establishment of a representative committee of the students which shall become a permanent institution and afford the Committee on Student Affairs a convenient means of communicating with the student body.

3. GRADUATE DEPARTMENT

In my report for 1905–1906, page XIV, I stated that on April 11, 1906, a special session of the University Faculty considered the subject of the needs and prospects of the Graduate Department, and a committee was appointed to consider and report upon certain matters in relation to the Graduate Department. On February 8, 1907, this committee recommended to the Faculty the adoption of the following resolution:

> "*Resolved*, that the University Faculty recommend to the Board of Trustees the establishment of a graduate school under the administration of a separate Faculty to consist of the professors in those departments in which graduate work is offered."

After a brief debate it was moved and carried that the report of the committee be accepted and the committee discharged.

In my report for 1906–1907, page xx, I said that I regretted that the report of this Committee received so little attention and I trusted that the whole subject might receive the careful consideration of the University Faculty next year. On November 8, 1907, it was moved in the University Faculty that a committee of five be appointed by the President to consider and to report on the organization of a graduate school. It was also voted at the same meeting that the committee on the organization of a graduate school to be appointed by the President, as soon as it has sufficiently proceeded with its inquiries, request the Committee on Graduate Work to confer with it. The President of the University subsequently appointed the following committee in pursuance of the first resolution:

The Dean, chairman, Professors E. B. Titchener, E. L. Nichols, W. F. Willcox and A. Ross Hill.

This committee met frequently during the year and considered various means for increasing the efficiency of the Graduate Department, such as the appropriation of money for research work in the graduate department; retirement of professors under the service clause of the Carnegie Foundation with subsidiary pensions from the University to enable them to devote themselves exclusively to research without great pecuniary sacrifice; shortening of the teaching year and reduction of the routine and administrative duties to a minimum, etc. They also considered such secondary aid to the Graduate Department as might consist in special announcements containing not merely courses, but a statement of facilities for research, list of titles of investigations published during previous years and of those in progress; and, finally, the committee considered the modification of admission requirements in the direction of greater liberality and the admission of our own students to graduate standing at the beginning or middle of the senior year in cases where they have by selection of their work prepared themselves for such standing in some one department.

The committee in its partial report to be mentioned presently had no specific recommendation to make in regard to these points, although it felt that the adoption of some or all of them would increase the efficiency of the Graduate Department. It seemed to the committee that the most urgent need of the Graduate Department was its reorganization in some form which should concentrate responsibility in the hands of the persons actively engaged in the work of the Graduate Department. The Graduate Department as at present organized is in charge of the University Faculty and the Dean of the University Faculty is ex-officio chairman of the Committeee on Graduate Work, which is really the only organization responsible for the management and efficiency of the Graduate Department. This Committee now consists of eight members renewed from year to year. The chairman of the Committee, the Dean of the University Faculty, is responsible for the conduct of business and on him falls practically the entire routine work of the Graduate Department. The Dean is at present chairman of all the other standing committees of the University Faculty and is unable to devote his attention exclusively to any one of these committees. The Committee on Graduate Work is called together only when cases arise which the chairman does not feel authorized to settle and the Committee has no share in the routine work or any responsibility for its efficient conduct. The Committee also does not consider itself as a legislative body and rarely suggests improvements.

The committee of five above mentioned met with the Committee on Graduate Work and on June 12th made a report of progress to the University Faculty, recommending that beginning with September, 1909, there should be created a Graduate School with a faculty of its own, consisting of professors who in each year are actively engaged in supervising the work of graduate students as members of special committees in charge of major or minor subjects, these professsors to be designated by the President as soon as possible after the registration of graduate students in each year. The committee also recommended the creation of a new office, that of Dean of the Graduate School, the duties of that officer to be to serve as executive officer of the Graduate Faculty as above constituted and to conduct the work of the Graduate School under the direction of the Faculty of that School. This partial report of progress was accepted by the Faculty and the committee continued with the understanding that a final report should be presented as early as possible next year.

In my last report, page xx, I called attention for the second time to the question of graduate work done during the summer, either in the session of the summer school or outside the session of the summer school. This subject has occupied the attention of the Committee on Graduate Work during the year and the necessity of some limitation of such work was recognized. The number of students taking work during the summer, either in the Summer Session or during the summer vacation, is increasing every year and will undoubtedly increase more rapidly when it is understood that work during the summer may in certain cases reduce the time required for the Doctor's degree from three years to two. The ordinary candidate receives credit for a year for the work done during the regular sessions of the University and if he continues his work privately during the summer vacation receives no credit for it. But the candidate pursuing work in botany, entomology and agricultural subjects may receive credit for one year and one third for the work done during the college year and the vacation. It is a very serious question whether this discrepency between various classes of candidates for the same degree should be allowed, but in my own judgment the most serious objection to work done during the summer is the fact that no organized provision exists for it outside of the brief Summer Session. It does not seem right to expect professors to remain in Ithaca during the summer giving instruction to graduate students and supervising their work, without extra compensation. At the same time it does not seem right to give credit toward a degree for work which is not pursued under substantially the same conditions as those which prevail at the regular sessions of the University. I trust that upon the reorganization of the Graduate Department this subject will receive prompt attention and the policy of the University in this important matter will be more clearly defined.

Graduate students who are not candidates for a degree, as well as those who are, have been required to work under the direction of a special committee of the Faculty. The numbers of such students for the past sixteen years have been as follows:

'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08
4	1	11	14	18	14	35	20	22	19	18	12	11	21	18	13

The number of advanced degrees conferred during the years 1892–1908 was as follows:

	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	Tot.
A.M. . .	6	4	8	2	1	10	10	16	14	20	19	22	12	23	13	10	22	212
Ph.M. .	2	—	3	1	3	—	—	—	—	—	—	—	—	—	—	—	—	9
M.L. . .	1	3	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	9
M.S. . .	7	6	10	7	12	6	6	3	—	—	—	—	—	—	—	—	—	57
M.C.E.	—	2	8	4	—	1	3	2	1	3	—	3	—	3	1	1	2	34
M.M.E.	6	14	16	8	15	6	2	7	4	10	4	7	6	9	4	4	5	127
Ph.D. .	8	4	16	13	14	11	23	7	19	20	23	20	13	21	19	19	22	272
D.Sc. . .	—	2	3	6	3	3	—	—	—	1	—	—	—	—	—	—	—	18
M.S. in Agr.	—	—	—	—	—	—	—	—	—	—	7	3	2	10	11	9	12	54
M.S. in Arch.	—	—	—	—	—	—	—	—	—	—	—	1	1	1	1	1	3	8
Total. .	30	35	66	44	48	37	44	35	38	54	53	56	34	67	49	44	66	800

The candidates for advanced degrees during the years 1896–1908 were distributed as follows:

I. By degrees:	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08
A.M.	3	14	19	31	35	45	40	55	40	50	41	54	65
Ph.M.	6	—	—	—	—	—	—	—	—	—	—	—	—
M.L.	4	—	—	—	—	—	—	—	—	—	—	—	—
M.S.	9	3	1	—	—	—	—	—	—	—	—	—	—
M.S. in Agr.	5	7	9	7	4	13	12	8	12	17	26	24	35
M.S. in Arch.	1	1	1	3	1	—	—	2	3	3	2	2	2
M.C.E. . . .	5	3	4	3	3	5	1	4	5	5	12	6	4
M.M.E. . .	18	10	11	12	9	17	15	16	19	22	15	20	18
Ph. D.	58	79	89	93	100	100	100	95	94	85	116	117	110
D.Sc.	22	16	11	6	2	3	2	2	2	—	—	—	—
Total.	131	133	145	155	154	183	170	182	175	182	212	223	234

II. By subjects (each minor counted separately) during the years 1895–1908:

SUBJECT	MAJOR													MINOR												
	'95-96	'96-97	'97-98	'98-99	'99-00	'00-01	'01-02	'02-03	'03-04	'04-05	'05-06	'06-07	'07-08	'95-96	'96-97	'97-98	'98-99	'99-00	'00-01	'01-02	'02-03	'03-04	'04-05	'05-06	'06-07	'07-08
Semitic Languages	—	—	—	—	—	—	—	1	—	7	1	1	—	—	1	1	1	2	1	1	—	—	—	—	—	—
Greek, Comp. Phil	2	5	5	7	8	6	6	6	3	—	4	4	2	15	13	14	18	17	16	11	14	14	11	9	9	9
Latin	4	3	4	4	4	7	5	7	9	3	5	6	6	3	3	3	6	7	7	5	8	3	4	3	6	4
Germanic Languages	4	4	1	2	2	3	4	7	3	2	3	4	4	5	5	7	8	7	8	9	9	6	3	4	6	3
Romance Languages	3	6	5	7	3	3	4	6	4	5	4	5	6	6	9	8	6	6	9	9	6	8	6	7	11	13
English	11	12	11	12	12	10	9	7	4	4	7	7	10	12	17	5	7	8	7	7	11	2	4	9	11	11
Philosophy	20	14	15	13	15	14	13	11	14	11	13	16	18	37	30	35	32	22	20	24	22	18	17	23	21	24
Science and Art of Edu. (previously under Philos.)	—	—	—	—	—	2	3	6	—	2	1	1	12	—	—	—	—	—	7	5	4	1	3	—	1	10
History and Political Science	16	15	24	23	16	15	17	15	7	9	9	13	8	28	31	47	43	31	25	36	28	15	18	27	28	16
					9	7	6	5	4	6	12	9	5					12	10	9	7	10	13	18	17	19
Math. and Astron	4	4	3	7	8	6	6	9	6	8	14	12	9	16	21	18	20	17	25	18	18	14	13	20	21	14
Physics	9	12	12	12	10	17	8	9	9	10	18	24	25	20	14	18	22	18	22	16	19	15	21	38	49	49
Chemistry	11	14	18	13	14	15	17	21	20	21	31	30	32	11	14	18	15	18	25	24	20	18	18	30	33	40
Botany, Arboriculture	6	7	7	9	9	10	10	13	10	12	13	12	6	14	15	19	15	20	22	19	21	18	20	29	23	20
Entomol., Gen. Inv. Zool.	1	2	1	3	8	14	9	9	5	10	10	14	8	3	4	3	10	11	15	18	16	10	15	16	25	19
Physiol., Vertebrate Zool.	1	2	1	—	1	2	3	3	4	6	7	1	3	3	3	1	2	4	1	1	2	5	4	8	6	2
Anatomy	—	—	1	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	2	2	—	1	—	—	—	—
Microscopy, Embryology	—	—	1	1	2	5	6	3	5	3	1	2	—	—	3	2	2	6	7	8	7	5	5	3	2	3
Geol., Paleont., Mineral	2	4	4	2	4	3	5	6	4	7	3	5	7	8	11	13	11	11	10	10	14	9	15	13	9	10
Physical Geography	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	5	5
Medicine (Anatomy)	—	—	—	—	—	—	—	—	1	2	—	—	2	—	—	—	—	—	1	—	—	4	6	3	6	1
Agriculture	8	11	13	13	3	11	11	5	13	13	31	27	42	3	10	13	13	8	8	10	5	10	17	36	28	46
Horticulture	—	—	—	—	7	6	4	6	3	9	6	4	—	—	—	—	—	4	6	4	3	3	4	3	2	—
Forestry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—	—	—
Veterinary Medicine	—	—	1	1	2	—	2	1	1	1	4	—	—	—	—	3	2	3	3	3	8	4	1	7	1	—
Architecture	1	1	1	3	1	—	—	2	2	1	3	2	3	—	1	1	3	1	1	—	2	1	1	1	2	1
Civil Engineering	8	4	5	4	6	8	4	6	6	8	14	7	5	10	5	5	6	9	8	6	7	11	12	13	9	4
Mechanical Engineering	20	13	12	15	10	19	18	19	17	19	17	20	20	19	16	11	14	10	17	19	16	13	17	16	17	18
Law	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—

III. Actual number of students in each subject during the years 1895–1908.

SUBJECT	'95-96	'96-97	'97-98	'98-99	'99-00	'00-01	'01-02	'02-03	'03-04	'04-05	'05-06	'06-07	'07-08
The Semitic Languages and Literatures	—	1	1	1	2	1	1	1	—	—	1	1	—
Greek and Comparative Philology (including Classical Archæology)	8	6	10	14	16	14	11	12	12	10	9	12	8
Latin	5	4	6	10	11	13	9	15	14	11	8	12	10
The Germanic Languages	5	8	7	10	8	10	11	13	10	5	7	8	7
The Romance Languages	5	8	8	9	7	9	10	9	8	6	8	10	12
English	16	19	12	14	13	14	13	15	4	6	9	14	15
Philosophy	22	19	22	21	22	18	19	17	18	14	16	19	21
Science and Art of Education (previously under Philosophy)	—	—	—	—	—	9	7	9	2	5	1	2	11
History, Ancient and Mediæval	8	5	7	11	4	11	18	22	11	16	26	3	6
Modern	11	14	21	22	27	15	20		8			16	10
American	8	9	15	12	15	14	14	15	9	10	11	10	8
Political Science and Social Science	12	9	15	12	13	14	9	7	9	14	17	18	21
Mathematics and Astronomy	14	18	20	18	18	23	18	21	18	14	23	24	17
Physics	21	17	19	24	18	22	18	21	22	20	33	41	42
Chemistry	13	15	19	14	17	20	21	26	26	23	35	33	35
Botany and Arboriculture	13	14	15	16	17	19	15	19	13	18	25	20	19
Entomology and General Invertebrate Zoology	4	6	4	10	14	22	20	18	18	17	18	28	19
Physiology, Vertebrate Zoology and Neurology	3	1	2	3	5	2	4	5	8	9	13	7	4
Anatomical Methods and Human Anatomy	—	2	1	—	—	2	2	—	—	—	—	1	—
Microscopy, Histology and Embryology	3	3	3	3	8	12	13	10	10	8	4	4	3
Geology, Paleontology and Mineralogy	7	8	11	10	11	10	10	12	10	13	12	11	11
Physical Geography	—	—	—	—	—	—	—	—	—	—	—	5	6
Medicine (Anatomy)	—	—	—	—	—	1	—	—	3	6	3	6	3
Agriculture	4	7	10	10	7	13	14	9	15	19	36	31	44
Horticulture	5	10	12	11	9	11	8	7	4	10	8	4	—
Forestry	—	—	—	—	—	2	—	2	—	—	—	—	—
Veterinary Medicine	—	—	2	1	2	3	5	9	5	2	6	1	1
Architecture	1	1	1	3	1	1	–	2	3	1	3	2	4
Civil Engineering	10	5	6	5	7	8	6	7	11	12	19	11	6
Mechanical Engineering	23	16	14	17	11	22	23	21	20	20	21	21	21
Law	—	—	—	—	—	—	—	—	—	—	—	1	—

During the past twenty years 1,872 graduates of 227 institutions have been admitted to graduate work, distributed as indicated in the following table:

Acadia	7
Adelphi College	3
Adelbert	3
Alabama Agr. and Mech.Coll.	2
Albion	3
Alfred	3
Allegheny	3
Amherst	6
Anatolia	1
Arkansas	5
Armour Inst. of Tech.	1
Baker Univ	1
Barcelona Coll	1
Barnard College	1
Bates	3
Beloit	2
Bengal Agr. College	1
Bengal Presidency College	1
Berea College	2
Boston	4
Bowdoin	2
Brigham Young	1
Brown	16
Bryn Mawr	1
Buchtel	6
Bucknell	4
California	20
Cambridge University	2
Campbell	1
Cape of Good Hope	1
Capitol	1
Carleton	2
Chaddock	1
Cheshire Agr. and Hort. Coll. (England)	1
Chicago, Univ. of	7
Cincinnati	3
Clark University	1
Colgate	4
Colorado, Univ. of	4
Colorado State Agr. Coll.	1
Colorado School of Mines	1
Columbia	15
Columbia School of Law	1
Cooch-Behar Coll. (India)	1
Cornell College	3
Cornell University	840
Dalhousie	23
Dartmouth	6
Davidson	3
Denison	1
Denver	1
DePauw	19
Duff College (India)	1
Earlham	6
Ecole Nationale (France)	1
Elmira	2
Erlangen (Germany)	1
Fargo College	1
Franklin	3
Franklin and Marshall	1
Furman University	2
Gallaudet	1
Georgia, Univ. of	2
Geo. Washington Univ.	1
General Assembly's Institute (India)	2
Ghent, State Univ. of	1
Greenville College	1
Halle	3
Hamilton	9
Hamline	1
Hannover Tech. Hochschule	1
Harvard	21
Harvard Annex	1
Harvard (Lawrence Scientific)	1
Haverford	3
Hillsdale	4
Hobart	3
Illinois	18
Illinois College	1
Illinois Wesleyan	2
Imperial Royal Higher Gym.	1
Indiana	52
Indianapolis	4
Institute Nat. Agronomique	1
Iowa Agr.	7
Iowa College	6
Iowa State University	9
Iowa State College	1
Iowa Wesleyan	1
Japan Imperial Univ.	2
Johns Hopkins	9

Kansas Agr.	7
Kansas State Univ.	15
Kentucky State College	1
Knox	6
Lafayette	4
Lake Forest	3
Lawrence	1
Lehigh	8
Leipsic	1
Lombard	1
London	2
Luther	3
McGill	6
MeKendree	1
Maine, Univ. of	8
Manitoba	7
Mason (Birmingham, Eng.)	1
Massachusetts Agr.	8
Massachusetts Inst. of Tech.	8
Mercer University	1
Miami University	2
Michigan Agr.	11
Michigan, Univ. of	32
Middlebury Coll.	1
Milton	1
Minnesota	18
Missouri School of Mines	1
Missouri State	16
Moore's Hill College	1
Mt. Allison	5
Mt. Holyoke	5
Mt. Union	1
Napa	1
Nashville	3
Nebraska	18
Newberry	1
New Brunswick, Univ. of	1
Newcomb	3
New Hampshire College	3
New Hampshire Agr.	1
New York, Coll. of the City of	5
North Carolina	7
North Carolina Agr. Coll.	3
North Dakota, Univ. of	3
Northwestern Univ.	5
Notre Dame	1
Oberlin	10
Ohio State	32
Ohio University	5
Ohio Wesleyan Univ.	4
Ohio Northern Univ	1
Oklahoma, Univ. of	1
Ontario Agr. Coll	1
Oregon State Univ.	2
Oregon Agr. College	2
Ottawa	1
Otterbein	1
Oxford	1
Pacific Univ. (Calif.)	1
Pacific Univ. (Oregon)	1
Penn Coll. (Iowa)	2
Pennsylvania Coll. for Women	1
Pennsylvania State	3
Pennsylvania, Univ. of	4
Pennsylvania, West. Univ. of	2
Pine Hill Theol. Sem.	1
Pomona College	1
Presbyterian College of S. C.	1
Princeton	8
Purdue	15
Queen's Univ. (Kingston, Can.)	3
Randolph-Macon	1
Rensselaer Poly. Inst.	1
Rochester	9
Rockford Coll.	1
Rose Poly. Inst.	3
Rutgers	5
St. Andrews (Scotland)	1
St. Lawrence Univ.	2
St. Petersburg (Russia) Real Gymnasium	1
Scio College	1
Sibpur Agr. Coll. (India)	3
St. Stephens College	1
Smith	25
South Carolina	3
South Dakota Agr	3
Southern California	2
Southwestern Univ. (Texas)	1
St. Olaf	1
Stanford	13
Stevens Inst.	7
Susquehanna Univ.	2
Swarthmore	4
Sydney Univ. (New So. Wales)	2
Syracuse	13
Texas	7
Texas Agr.	4
Tokio University	3
Toronto	24
Trinity Coll. (Toronto)	1
Tulane	1

Union	3
U. S. Naval Academy	4
Ursinus College	1
Utah University	1
Utah Agr. Coll.	2
Vanderbilt	1
Vassar	20
Vermont	3
Victoria	1
Vienna (Austria)	1
Virginia	1
Virginia Agr. and Mech. Coll.	2
Virginia Poly. Inst.	3
Wabash	8
Wake Forest College	5
Washington Univ.	3
Wellesley	14
Wells	3
Wesleyan	7
Westminster	2
West Virginia, Univ. of	3
Wheaton	2
Washington State Coll.	2
Western Reserve	2
Williams	5
Wilson	1
Wisconsin	18
Wittenberg	1
Woman's College, Baltimore	3
Wooster	3
Worcester Poly. Inst.	6
Yale	11
Yale Theological Sem.	1
Yale (Sheffield)	5
Zurich Polytechnium	1

4. SCHOLARSHIPS AND FELLOWSHIPS

No changes have been made during the year in regard to the University undergraduate scholarships. The full number of 18 was filled at the examination in September, 1907.

At the meeting of the University Faculty held December 13, 1907, the following resolution was adopted and submitted to the Board of Trustees for its approval, which was subsequently granted:

> "No officer of the University shall assist directly or indirectly in the preparation of any competitor for a university undergraduate scholarship, or take any action that might result in the slightest real or apparent advantage to one competitor over another. The heads of departments concerned shall be responsible for the secrecy of the examination questions, and shall take special precautions during the processes of type setting and printing. Each examination shall be in charge of a professor or an assistant professor, and no person below the grade of instructor shall act as proctor or reader, or have access to the papers of the competitors."

This resolution was accompanied by a statement that the Faculty saw no reason to reflect on the fairness of any person in the past, but desired to safeguard the future and to remove every possible ground of suspicion as to the scrupulous impartiality of the award of these great prizes for which the competition is so keen.

5. FACULTY LEGISLATION

The legislation affecting the standing committees of the University Faculty has already been referred to in the chapter of this report dealing with the Committee on Student Affairs. Considerable time was devoted during the year to the consideration of proposed changes in the University calendar. Two plans were submitted. The first provided that instruction begin on September 1st and end December 22nd, that instruction be resumed January 22nd and end May 16th with Commencement on May 26th. The second plan provided that instruction begin two weeks later than at the present; that the present Christmas holiday vacation be retained; that the first term end two weeks later than at present; that the second term begin three days after the end of the first term, as at present; that the spring vacation be abolished and that the second term end at the same date as at present. These plans after some debate were referred to the Committee on University Policy to consider and report. On the 13th of March, 1908, the Committee on University Policy reported that the Committee deemed it at present undesirable to make any changes in the calendar, and the report of the Committee was approved.

At the same meeting the Committee on University Policy recommended to the Faculty that the University exercises begin at ten minutes past the hour and end promptly at the hour, and the recommendation was adopted.

Respectfully submitted,
T. F. Crane,
Dean of the University Faculty.

APPENDIX III

REPORT OF THE DEAN OF THE FACULTY OF ARTS AND SCIENCES

To the President of the University:

Sir:—I have the honor to submit herewith my first report as Dean of the Faculty of Arts and Sciences covering the academic year 1907–1908. The year has been an active one in Faculty legislation, and the report consists mainly of a resumé of this legislation and of the work of the standing committees of which the Dean is ex-officio chairman.

ENTRANCE REQUIREMENTS

At the very beginning of the session the question arose in both of the standing committees of the Faculty whether some changes in the entrance requirements of the College might not be desirable. Several changes had been made in the curriculum for undergraduates without considering the entrance requirements as related to them, and it was thought by the committees to be an opportune time for an investigation of the administrative workings of the existing requirements, and for a consideration of their educational validity. The Committee on Educational Policy was interested primarily in the questions of the special function of secondary as distinct from higher education, what should be required of every student on entering College as the foundation for further study, and what might be left to individual interest and local circumstances. The Committee regarded it as desirable that the College insist upon a reasonable continuity of work in the preparatory school, but on the other hand felt it unfair to the individual student to refuse him all recognition for work not carried to the maximum of high school credit in one subject. The existing requirements, for instance, allowed no credit on entrance Latin except to those who were able to present the equivalent of four years of high school study in Latin grammar and composition, Cæsar, Cicero and Virgil. The Committee believed that the student who pursued Latin for two or three years should get credit for the work done, but regarded two years as the minimum if the training was to be counted as having much value. Similarly the Committee on Academic Records found the administration of the existing requirements somewhat complicated because so many students could present two or three years of Latin, but not four, because persons who could present Greek without Latin had no opportunity to get the Greek counted, and because of similar restrictions placed upon credit in other subjects. It was also found that the unit in terms of which the entrance requirements had been defined was peculiar to Cornell and not altogether easy of interpretation by students, or even teachers, in the preparatory schools; and it was thought better to adopt the unit in common use throughout the country since its definition in the report of the N. E. A. Committee on College Entrance Requirements in 1898, namely, "The equivalent of a course pursued throughout one year in a secondary school with five recitations a week."

After full discussion and the study of existing requirements in other institutions of Cornell's rank, both Committees unanimously agreed to recommend to the Faculty the adoption of the following requirements for admission to the College of Arts and Sciences:

English	3 units
History	1 unit
Elementary Algebra	1 unit
Plane Geometry	1 unit
Foreign Languages	4 units
Elective	5 units

The unit referred to is the national unit above mentioned, and the subjects which may be presented for entrance and the minimum and maximum number of units which may be accepted in each subject were fixed as follows:

English	3 units
History and Civics	1, 1½, 2 or 2½ units
Latin	2, 3 or 4 units
Greek	2 or 3 units
German	2 or 3 units
French	2 or 3 units
Spanish	2 or 3 units
Algebra	1, 1½ or 2 units
Plane Geometry	1 unit
Solid Geometry	½ unit
Trigonometry	½ unit
Physics	1 unit
Chemistry	1 unit
Physiography	1 unit

Botany	1 unit
Zoology	1 unit
Botany and Zoology	1 unit
(Not accepted if one unit in either botany or zoology is offered)	
Drawing	½ or 1 unit

The report of the Committees was unanimously adopted by the Faculty on November 1, 1907.

The result of the new requirements is to raise somewhat the total number of units required for admission and to give at the same time greater flexibility, while the specific requirements are expected to guarantee the essentials in preparation for college.

On December 6, 1907, the Faculty agreed to accept, in lieu of the new requirements for admission, the "College Entrance Diploma" issued by the State Education Department of New York State, provision for which was made at the meeting of the Board of Regents on October 17, 1907, in response to a resolution of the State Examinations Board. A statement of the requirements of this diploma will be found on pages 237–239 of the annual report of the Education Department of New York State for the year 1908. They correspond very closely to the new requirements at Cornell, and the acceptance of this diploma will greatly simplify the administration of admission on Regents' credentials.

The new requirements were put into effect at once and students have entered the College in accordance with them since December last, but for a period of two years incoming students will be permitted to enter on the former requirements if they prefer to do so. Probably many students from private preparatory schools will prefer to meet the specific but somewhat lower standards of the old requirements, as their courses have been planned with reference to them, but graduates of the public high schools, especially of New York State and of the west, will undoubtedly find the new requirements more in keeping with the arrangement of courses and valuation of units under which they have been trained and they will prefer to meet the higher standards but more flexible arrangement of the new requirements.

ADVANCED STANDING FOR WORK DONE IN PREPARATORY SCHOOLS

At the same meeting of the Faculty the following resolution, which had been introduced in the University Faculty and referred to the Faculties of the several Colleges for separate action, was read and referred to the Committee on Educational Policy:

> "*Resolved*, that credit toward a University degree for work done in institutions other than those of collegiate rank will be given only to such students as pass successfully an examination set by the department concerned. The examination will cover substantially the same ground as the University course in the subject and may not be taken unless application for admission to the examination is received by the department at least one week before the examination and permission to enter the examination has been obtained from the department concerned."

Several meetings of the Committee were held to consider this resolution, to one of which the Committee on Academic Records was also invited. The Committee gradually reached the conclusion that it would be unfair and unwise to give no advantage to students from the better schools except on examination so long as the University retains the practice of admission by certificate. With a view to still further advancing the standards of the University, it was also thought to be desirable to encourage the better schools to have their students complete, before coming to Cornell, some of the more elementary work that is now offered and counted towards the degree of Bachelor of Arts. It was thought, too, that while in some courses the work of the first years in college must be qualitatively different from work in the corresponding courses in high schools, this would not hold true of certain subjects which are pre-eminently appropriate for high school subject matter, for instance, modern languages. There seemed no good reason why beginning French or German might not be as well taught and as thoroughly mastered in the high school as in college. Finally, the Committee unanimously agreed to recommend the adoption by the Faculty of the following resolutions as substitutes for the one referred from the University Faculty:

> "1. *Resolved*, that the Registrar be requested to report to the Committee on Academic Records the amount and character of the preparatory work of which each Freshman has submitted evidence.
>
> "2. *Resolved*, that the Committee be authorized to deduct from the 120 hours required for the degree of A. B. as many hours as the excess of the student's preparatory work over 15 units may warrant.
>
> "3. *Resolved*, that a student of whom not more than 108 hours are thus required for graduation shall be considered as having completed one term of residence.
>
> "4. *Resolved*, that the Committee on Academic records shall be requested to furnish each student entering the College of Arts and Sciences for the first time with a statement of the conditions on which he may expect to receive the degree of Bachelor of Arts."

These resolutions were discussed at length and adopted by the Faculty on January 3, 1908.

ADMINISTRATIVE BOARD FOR FRESHMEN AND SOPHOMORES

At the meeting of the Faculty of Arts and Sciences held on February 7, 1908, a communication was received from the Secretary of the Executive Committee of the Board of Trustees announcing the following action of the Committee taken February 3, 1908:

"*Whereas*, The Association of American Universities, which is composed of the eighteen foremost universities of the United States, at its last annual meeting held in Ann Arbor, January 9th–10th, 1908, defined an American University as an institution which (1) possessed a strong graduate department and (2) based its professional work on a college course of liberal education, which should ordinarily be at least two years, and made this definition the criterion of admission to the Association, and consequently the condition of recognition by certain governments; and

"*Whereas*, among the best of our colleges and universities the great break in the course of a collegiate or liberal education comes at the end of the second year, both as regards the curriculum and the methods of instruction; and

"*Whereas*, not only is the foregoing tendency well marked in the College of Arts and Sciences in Cornell University, but the action recently taken by the professional faculties gives the work of the first two years in the College of Arts and Sciences a new importance for the professional schools; and

"*Whereas*, this differentiation of the work, methods of instruction, and educational aims of the first two years of the course in the College of Arts and Sciences in contrast with those of later years of that course calls for a corresponding differentiation in the staff of instruction, which could not fail to insure greater thoroughness of instruction, greater simplicity and effectiveness of administration, and closer personal and social intercourse between teachers and students; be it, therefore,

"*Resolved*, that a Special Committee, of which the Chairman shall be a member, be appointed to confer with a similar Committee from the Faculty of Arts and Sciences, with a view to formulating a scheme of reorganization and elaborating such details as may seem expedient.

"The Chair appointed as such Committee, Trustees Schurman, Van Cleef, Treman, C. E., and Newman."

After full discussion the Faculty decided to elect a committee of five to confer with the committee of the Board of Trustees, the results of their deliberations to be reported back to the Faculty before any action should be taken by the Board of Trustees. The following members of the Faculty were elected members of the joint committee: Professors Crane, Hill, Hull, Nichols and Willcox.

Several conferences of the joint committee of Board and Faculty were held, and the Registrar prepared for the committee a full and careful statistical statement of the registration of freshmen and sophomores in the courses offered in this College. It was discovered that the total number of registrations amounted to 2,002 in 143 courses, but that 1,785 of these registrations, or about nine tenths of the whole number, were found in 55 courses, each registering from 8 to 141 freshmen and sophomores, and that almost three fourths, namely 1,444 of 2,002, were found in 28 courses whose minimum registration was 20 students of the first two years. These facts convinced the members of the joint committee of the possibility of legislation regarding the work of students in the first two years that would apply to the great majority of such students, without involving any change in the work of juniors and seniors.

With a view to having a special group of teachers made responsible for the work of freshmen and sophomores in the College of Arts and Sciences and to bringing these students into close relation with a definite group of teachers regarded as especially their own, the committee recommended:

> "That Freshmen and Sophomores be put in charge of an administrative board which shall consist of a group of teachers designated by the President; and that this administrative board in charge of Freshmen and Sophomores shall have full power to supervise their work and to provide means for making it effective; and while for the accomplishment of this object this administrative board is empowered to make such rules, regulations, and arrangements as they may deem expedient, their action in these matters may at any time be disallowed by the Faculty. And the Faculty reserves to itself the function of legislation on all important subjects, and especially on the subjects of entrance requirements, courses of study, and standards of admission to the College and for advancement from class to class."

The committee further recommended:

> "That the Dean of the College of Arts and Sciences be ex-officio Chairman of the aforesaid administrative board in charge of Freshmen and Sophomores. But in order that the Dean, whose functions are already very numerous and onerous, may not be over-burdened, it is recommended that another member of the administrative board be appointed secretary of the board at a salary to be fixed by the Trustees, the duties of said secretary to be fixed by the Dean, whose assistant he is to be and to whom he shall be responsible."

This report was adopted by the Faculty at a special meeting on April 17, 1908, and the President named as members of the administrative board for freshmen and sophomores the following teachers in the College of Arts and Sciences: Messrs. Adams, Bristol, Browne, Catterall, Creighton, Durham, Faust, Gordon, Ibershoff Olmstead, Prescott, Reed, Sampson, Shearer, Tanner, Tarr.

Subsequently on the recommendation of the Dean-Elect, Professor Hull, the Trustees appointed Assistant Professor Durham of the Latin Department as secretary of said board.

It is hoped that this movement will tend to foster closer personal relations between freshmen and sophomores and their teachers and will render more efficient the instruction in elementary courses. The experiment will be watched with interest by the Faculty and friends of the College.

VOCATIONAL COURSES

At the special meeting of the Faculty on April 17, 1908, a matter that had occupied the attention of the Committee on Educational Policy for several months was brought before the Faculty for definite consideration and action. At the December meeting the President had called attention to the recommendations made in his Annual Report to the Trustees for 1906–1907 in regard to the formulation of vocational courses in the College of Arts and Sciences, and after some general discussion the recommendations had been referred to the Committee on Educational Policy for consideration and report. The Committee studied carefully the practices of other universities and discussed at length the questions of policy involved for this College. It was thought that the essential purpose of the College should be to furnish opportunity for those who wish to pursue the arts and sciences without reference to their utility; and yet it was the general belief of members of the Committee that the great majority of students actually do have vocational aims in taking a college course, and that there would be decided advantages if courses were organized in groups so that students with vocational aims might plan their work with greater ease and definiteness, with less waste of time, and with better results in training. On the other hand there was some fear lest the announcement of groups of vocational courses might seem to invite students to the pursuit of vocational aims in their study at a sacrifice of the spirit of liberal culture to which the College is primarily dedicated, thus making the College of Arts and Sciences essentially a professional school, similar in spirit to the other professional schools of the University but with less unity of purpose. But the dangers involved being regarded as problematical, and the advantage of giving motivation to the work of some students where none seems now to exist, being obvious the Committee finally decided to recommend to the Faculty the adoption of the folowing resolutions:

"1. *Resolved*, that the Faculty of Arts and Sciences favors the arrangement of groups of courses for Juniors and Seniors in this College designed to guide students in preparing for the vocations of teaching, organized philanthropy, the civil service, and business management.

"2. *Resolved*, that the Faculty hereby requests the President to appoint committees, each comprising one or more members, to arrange such groups of courses subject to the approval of the Faculty.

"3. *Resolved*,that the Faculty recommends that the courses to be included in such groups be mainly those of a fundamental character rather than such as are highly specialized or applied."

The resolutions were adopted by the Faculty and there was added a fourth resolution recommending that in the arrangement of groups the committees be requested to allow considerable free time for the pursuit of studies not intended to bear directly upon the student's future vocation.

The committees recommended were appointed by the President, and groups of courses were arranged for prospective teachers, business managers, and workers in organized philanthropy. These groups were reported to the Faculty and, after some amendments, were adopted, but as they will be announced in detail elsewhere it does not seem necessary to give here even a general outline of their content. The committee appointed to arrange a group of studies for students looking forward to the civil service did not report before the close of the academic year.

REGISTRATION AND CREDIT

A matter that claimed the attention of the Committee on Academic Records for a good part of the year was the method of registration and of securing changes in registration. The fact that students registered not only with the Dean but with the departments as well, made it possible for the registration with the Dean especially to be counted largely formal, and made too easy unnecessary changes in registration before the end of each term. It was especially noticeable that many of these changes in registration were made after the middle of the term, showing that students in some cases virtually disregarded their registration at the central office, and did much as they pleased in the matter of registration in courses, only taking care in the majority of instances that the formal changes were made in time to have them recorded before the grades were sent in to the Registrar. Accordingly the following recommendation was submitted to the Faculty and after full discussion adopted, on May 6, 1908, that

"No department recognize any student as a regular member of any of its classes until registration in accordance with the following rules has been reported by the Dean to the department.

"1. Students registering in the College of Arts and Sciences for the first time shall hand in their study cards with list of courses for the term at the Dean's office on or before the third day of instruction.

"2. Two weeks before the end of each term students shall hand in their study cards with list of courses for the next term at the Dean's office.

"3. Changes may be made in the list of courses selected during the first ten days of instruction only, and then only with the approval of the Dean.

"4. After the first ten days of the term no student shall have the right to withdraw from any course in which he is registered, unless he shall previously obtain the consent of the Dean to withdraw from the course on the ground of ill-health or other reason beyond the student's control.

"5. A student whose marks average 85 or more in any term may register and receive credit for a maximum of 20 hours for the following term; a student whose marks average between 65 and 85 in any term may register and receive credit for a maximum of 18 hours for the following term; and one whose marks average 65 or less in any term may register and receive credit for a maximum of 16 hours for the following term.

"6. Students may not register for courses for which they are not permitted to receive credit."

The enforcement of these rules will correct some evils that grew up with the free elective system, and will tend to prevent carelessness on the part of some students who need to be protected against their own loose methods of study. The slight change made regarding the maximum credit per term should also tend to greater fairness in the administration of rules regulating credit hours and terms of residence.

BLOCK WEEK AND TERM EXAMINATIONS

A recommendation that "Block Week" be abolished and that final examinations be held on the last day of instruction, during the regular class period, was submitted to the University Faculty by the Committee on University Policy soon after the beginning of the second term last year. The recommendation was referred to the several Faculties for separate action, and by the Faculty of Arts and Sciences it was in turn referred to the Committee on Educational Policy for consideration and report. The matter was carefully considered in several sessions of the Committee, and as a result the following resolutions were submitted to the Faculty:

"1. *Resolved*, that the Faculty of Arts and Sciences favors the retention of Block Week.

"2. *Resolved*, that an examination or an equivalent exercise shall be held during Block Week for each course in this College.

"3. *Resolved*, that in courses where exemptions are permitted no student shall be exempt from the final examination whose mark on the class work of the course is less than 85."

The resolutions were adopted by the Faculty of Arts and Sciences after full discussion, with the hope that less irregularity may prevail in the attendance of students at the close of each term, and especially at the close of the first term of the year, and that the educative value of the final examination may be retained for all those who are in need of that stimulus and of the review of the subject which preparation for it naturally demands.

In order that the examinations under these rules may be conducted with a minimum of conflict, and for other important functions which such a committee can perform, the President was authorized to appoint a committee on schedule for the College of Arts and Sciences. Dean-Elect Hull and Professors Durham and Shearer were appointed as members of this committee.

CODIFICATION AND PUBLICATION OF RULES

On many occasions during the year students petitioned the Faculty for exemption from the operation of rules supposed to be well-known, on the ground that no public announcement of the rules in question had been made. The Dean, too, in taking up his work at the beginning of the year found it an exceedingly difficult matter to learn what old rules had been at some time abolished and what new ones had been adopted, some of the rules having been inherited from the former General Faculty and some of them having been passed by the Faculty of Arts and Sciences in recent years. Members of the Faculty and even members of the Committee on Academic Records often showed much confusion regarding what were supposed to be existing rules.

For these reasons and because a number of new rules were established during the session 1907–1908, it appeared advisable to have all rules of this Faculty codified and published for the benefit of both students and Faculty. A resolution authorizing the President to appoint a committee for this purpose was introduced into the Faculty by a member of the Committee on Academic Records. the resolution was unanimously adopted and Dean-Elect Hull and Professors Strunk and Willcox were appointed on this committee.

ARTS SUBJECTS FOR ENGINEERS

In considering the recommendations in the President's Report for 1906–1907 regarding the importance for students in the professional schools of English, history, economics and other subjects taught in this College, the Faculties of Civil Engineering and Mechanical Engineering were led to adopt five year courses, each course including over 70 hours in Arts and Sciences and at least 30 hours in literary and social studies. These courses are to be alternative courses, the former four year courses being also retained for the present.

Their action was made of especial interest to the Faculty of Arts and Sciences by virtue of the fact that the Engineering Faculties proposed to have the students entering the five year courses enrolled for two years in the College of Arts and Sciences and for the remaining three years in Civil or Mechanical Engineering. This proposal was referred by the Board of Trustees to this Faculty. It was not possible for the Committee on Educational Policy, to whom the courses were referred, to give adequate consideration to the matter before the close of the academic year, so that no final report was submitted to the Faculty but a report will be made and a definite policy decided upon early next year.

PUBLIC LECTURES

In pursuit of the policy followed in the session of 1906–1907 the Board of Trustees authorized the expenditure of $400 to secure public lectures before the College of Arts and Sciences for the year 1907–1908. The full amount was expended by the Dean in consultation with the Committee on Educational Policy, and under the provision of the Trustees the following lectures have been delivered during the academic year 1907–1908.

WILLIAM BATESON, - - - Cambridge, England
Inheritance of Color in Animals and Plants

OTTO PFLEIDERER, - - - - Berlin, Germany
The Religious and Ecclesiastical Conditions, and the Principal Tendencies of Theology and Philosophy in Germany at the Present Day

LUCIA AMES MEADS, - - - - Boston, Mass.
National Defense

JAMES FITZMAURICE–KELLY, - - London, England
Modern Spanish Literature

BARTON WARREN EVERMANN, - - Washington, D. C.
The Golden Trout

THOMAS D. BERGEN, A.B., - - - Ithaca, New York
Popular Songs of Naples

ADOLF MEYER, M.D., - - - - New York City
Mental Hygiene and Ethical Development

W. MAX MÜLLER, - - - - - - Philadelphia, Pa.
The Ancient Egyptians

WILLIAM ARCHER, - - - - London, England
The Elizabethan Play House

CHARLES ERNEST PAY, - - - - Tufts College
The Scenery of Mountains

GEORGE BRINTON McCLELLAN, - - New York City
Political Tendencies of the Day

ALFRED HOLT STONE, - - - Greenville, Miss.
Sectionalism and the Race Problem

EDWARD IDE, - - - - - New York City
Government Investigation and Regulation of Life Insurance

DELINQUENT STUDENTS

The action of the Committee on Academic Records in passing upon the cases of delinquent students is indicated in the following table in which the figures of the last six years are brought together for comparison:

Academic Year	Students dropped			Students warned or referred		
	First Term	Second Term	Total	First Term	Second Term	Total
1902–1903.....	15	1	16	37	13	50
1903–1904.....	21	12	33	17	20	37
1904–1905.....	23	20	43	18	10	28
1905–1906.....	21	16	37	20	18	38
1906–1907.....	18	15	33	42	48	90
1907–1908.....	21	21	42	24	21	45

Of the delinquents under the second heading "warned or referred," many were freshmen who had perhaps not yet adequately learned the methods or standards of work in the College as different from the preparatory schools from which they had come. The administrative board for freshmen and sophomores, whose establishment has been referred to earlier in this report, should be able to deal with some of these cases earlier in the term, and the result should be a better showing in this phase of the report in later years. The Committee has been slow to drop a student whose delinquency could be explained by lack of acquaintance with college work and college life, but the large number who failed to meet the standards established by the Faculty and were therefore "dropped," indicates that the Committee does not temporize with cases of deliberate negligence or inability to profit by instruction offered in the College. At the present time there seems little likelihood that the Faculty of Arts and Sciences will permit this College to become a loafing place or a refuge for incapables. The action of the Faculty in April last authorizing the Committee to drop students at any time in the term when their records demand that it be done, has already had a salutary effect upon the scholarship of the students, and will probably lead in the future to better records at the close of the term. Instead of leading to the dropping of more students, it will probably decrease the number of delinquents.

LEAVES OF ABSENCE

Following the practice of recent years the Dean has granted leaves of absence for causes that seemed to him justifiable. The number and classes of causes assigned by the students are given in the following list, along with the corresponding figures for the five preceding years:

LEAVES OF ABSENCE GRANTED, 1902–1908

Ground	1902-3	1903-4	1904-5	1905-6	1906-7	1907-8
Personal Illness	136	117	56	48	37	151
Illness or Death in Family	55	62	31	30	22	37
Request of Family	155	22	14	5	4	25
Wedding	29	20	18	13	7	14
Business Summons	48	67	42	32	23	48
Delegate to Convention	24	20	19	1	—	5
Voter	43	11	61	6	1	9
Department Excursion	27	60	29	7	7	6
Examinations	—	20	22	2	6	3
Missed Connections	—	34	6	—	—	3
Miscellaneous	79	23	11	11	24	8
Total	596	456	309	155	131	309

In closing this report I beg leave to express my appreciation of the splendid spirit which prevails in the Faculty of Arts and Sciences and my personal obligation to the standing committees of the Faculty who have shared the work of the Dean with a patience, interest and good judgment that made difficult work most enjoyable, and that will always make the year of 1907–1908 one of pleasant memories.

Respectfully submitted,
A. Ross Hill,
Dean of the Faculty of Arts and Sciences.

APPENDIX IV

REPORT OF THE DIRECTOR OF THE COLLEGE OF LAW

To the President of the University:

Sir:—I have the honor to submit the report of the College of Law for the academic year 1907–1908.

The death of Judge Finch in July, 1907, deprived the College of one of its oldest and most devoted friends and of a teacher who for many years had inspired students from the wealth of his legal learning, the breadth of his culture and the grace and force of his powers of exposition. The valuable course of lectures heretofore given by him on the history and evolution of law was necessarily stricken from the curriculum as it was manifestly unwise to attempt to continue it under any other professor.

In other respects all the courses announced have been given regularly, and down to this time no member of the Faculty has failed to meet his classes at every hour assigned.

Professor Alfred Hayes, Jr., has conducted the courses in torts, equity jurisdiction and constitutional law with great success. He has won the admiration and regard of all his colleagues in the Faculty and of the students. The course in bills, notes and checks, heretofore given by Professor Huffcut, was given during the first term by Mr. Colson with such success that it has been determined that he shall remain in charge of that course.

Judge Alfred C. Coxe, who has for so long given the course in admiralty, tendered his resignation because of the increased pressure of duties on the Circuit Court of Appeals. It was with great regret that the Faculty realized the necessity of losing his services and of severing relations with him as a colleague. Judge Coxe's letters have evinced a continuance of his interest in and friendship for the College, and it was largely through his advice that Judge George C. Holt, United States District Judge for the Southern District of New York, was invited to become his successor. Judge Holt has given the course in admiralty this year. The lectures were attended throughout by almost every student and were received with marked approval.

Judge Gunnison was unable to return from Alaska and give the course in bankruptcy. It was given by Mr. William H. Hotchkiss of the Buffalo bar, who has, ever since the passage of the present "Bankruptcy Law," been a referee in bankruptcy, who has edited the later editions of the text book in general use, and who, by his careful study and suggestions, has contributed greatly to the perfection of the law by amendments. The course as given by him proved very valuable.

Several special lectures were given during the year. Judge Hiscock, our honored Trustee, delivered during the first term a timely and suggestive address on "The Police Power." During the second term a course of four lectures was given on practical problems which present themselves to one about to commence the practice of law. For this course were selected graduates of the College, most of them graduates of recent years. These lawyers, speaking from recent experience and from a recollection of their own problems as the close of their law school course approached, accomplished the purpose of the course by aiding the students in solving critical questions concerning the choice of a location and equipment for the particular duties which will confront them upon their admission to the bar. To all those who have lent their assistance in this way, the Faculty desires to express its obligations.

The registration in the three classes since the full three year course was in operation is shown by the following table:

Year	Seniors	Juniors	First Year	Special	Total
1899–1900	52	61	61	4	178
1900–1901	45	52	78	7	182
1901–1902	34	71	86	7	198
1902–1903	48	77	95	5	225
1903–1904	53	76	109	3	241
1904–1905	58	80	86	4	228
1905–1906	65	69	83	4	221
1906–1907	51	70	89	1	211
1907–1908	48	68	85	5	206

In addition there have been registered 25 students from other Colleges of the University, nearly all from the College of Arts and Sciences. This number is exactly the same as last year. The greater number of these students from the College of Arts and Sciences expect to continue the study of law as a profession, but a few pursue certain courses, chiefly that in contracts, as a preparation for commercial pursuits. The courses now given are all extended courses designed solely to meet the needs of those intending to pursue the practice of law, and are not adapted to students who desire a general knowledge of the fundamental branches of law for cultural purposes, or as an aid in other vocations. There has been for some years a demand from the Engineering Colleges for briefer and less technical courses in contracts, torts and property, and students in the College of Arts and Sciences should be offered like general courses in these and other subjects. It is recommended that provision be made as soon as practicable for courses of the character indicated for the benefit of students in other Colleges in the University.

Of the 206 Law students 63 came from outside the State of New York. Last year there were 62 and in 1905–1906, 57.

The number of students in attendance May 1, 1908, was 180. Of the 26 registered and no longer in attendance, two transferred to the College of Arts and Sciences, 11 voluntarily withdrew, 12 were dropped for failure in work and one completed his course at the end of the first term and was given a leave of absence.

A year ago a radical change in the four year course was announced. In the past the greater part of the work of the students in that course has been each year in the College of Law. The change consisted in placing in the first year of the four year course a single Law subject, torts, and in requiring students in that year to take 12 hours a week of work in the College of Arts and Sciences. Elementary economics and English history are required subjects and the remainder of the Arts work is elected with the advice and approval of the Dean. The largest number entering the four year course in any previous year was 8. This year 24 registered. This increase confirms the statement in last year's report that there seems to be "a growing sense of the desirability of some kind of college work prior to the pursuit of professional study." Other facts lend emphasis to the statement. Of the three year Law students in their first year, 11 transferred from the College of Arts and Sciences after one or more years of work in that College and nine others entered after having one or more years of academic work in other institutions of collegiate rank. Five have the A.B. degree. Altogether only 39 members out of 89 are pursuing the first year Law work without previous Arts study. Furthermore, two students who registered for the three year Law course transferred to the College of Arts and Sciences with the expressed intention of pursuing one or more years of work there and then resuming the study of law, and four others, expressing to the Dean their sense of inadequate preparation, have consulted him as to the practicability of transferring at the close of their first year of Law study for a year or two of work in Arts. The growing realization by the students themselves of the inadequacy of a high school course as preparation for professional study, and the conviction of the Faculty that further preparation is desirable led to the statement in the announcement for next year, just published, that "applicants who have not had at least two years of college work leading to an A.B. degree, or to some equivalent degree, are strongly advised to pursue the four year course." The entire Faculty hope that this advice may soon become a requirement.

The discipline of the College has been well maintained. Students have been almost uniformly regular in attendance and attentive to their tasks. They have heartily cooperated with the Faculty in its efforts to render efficient the work of the College. The so-called "honor system" was adopted in January, 1907, on the initiative and at the request of the students. While perhaps it is still too soon to pronounce conclusive judgment upon its merits the Faculty is convinced that so far it has produced good results, and that so long as the students maintain it in their present spirit it is desirable that it should be continued.

In these days when it is generally thought that the ranks of the profession are overcrowded, and that the young lawyer must wait a long time for employment, it is gratifying to note that the graduates of the College seem readily to find acceptable opportunities. During the year the Dean was several times compelled to answer inquiries for men by stating that he knew of no graduate of the school who desired the proffered position.

The report of the librarian is herewith submitted. It will be observed that the funds available have permitted little except the continuation of series already commenced, with such additions as seemed absolutely necessary. I beg leave to direct attention to the work pursued by the librarian in collecting the statutes of the various states. He has carried this work on with the skill and intelligence which have characterized all his efforts. A comparatively small appropriation would now permit its completion. The library will not be properly equipped for research work until this collection is complete. The difficulty of obtaining the remaining books and the expense of obtaining them are continually increasing as other institutions realize the importance of such a collection and undertake the same work. I earnestly hope that the recommendation of the librarian for an opportunity to complete the collection be favorably considered.

Respectfully submitted,

Frank Irvine,

Director of the College of Law.

APPENDIX V

REPORT OF THE DIRECTOR OF THE MEDICAL COLLEGE

To the President of the University:

Sir:—I have the honor to present the following report of the Medical College for the year 1907–1908.

The important event of the year was the action of the Trustees directing that beginning with 1908–1909 no one shall be admitted to the school as a student in preparation for the degree of M.D. but graduates of certain accredited colleges and universities; and that for the ensuing year even such graduates shall not be admitted unless they are also proficient in inorganic chemistry and physics. Apart from the time gained in eliminating these two subjects from the schedule it is expected that a better educated class of students will enable us to modify our system of quizzing, so that fewer instructors may be needed. These changes constitute a fit beginning for the second decade of the school.

The completion of the first ten years of our existence warrants inquiry as to how much we have accomplished in justification of the public spirited generosity which prompted the creation of this College and the munificence which the founder has unfailingly exhibited towards it.

About the period of the foundation of the school it had become conspicuously evident that the proper place for the successful nurture of medical education was that assigned it at the beginnings of organized institutions of learning, that is, within the folds of the university as one of its coordinate colleges. The fact that Cornell accepted the gift of an entire medical school and placed its stamp upon it insured prestige for the College at the outset. The manner in which this was done by the University exemplified anew the wisdom which has been so conspicuous in the direction of its affairs. The leading work in medicine was established in New York City, but it duplicated the first and second years of the course at Ithaca. This gave the school a closer touch than was possible without it, seeing that the main body was so far removed as this city. It made us an integral part of the University in fullest sense, in that it afforded the opportunity for combined courses in Arts and Medicine, redounding greatly to the benefit of the latter, since it gave opportunity to pass directly into the Medical school students upon whom had been placed the stamp of a liberal education. The advantage to us has been conspicuous in the standing taken in New York by the students from Ithaca, who have completed here in the third and fourth years the Medical course essential to graduation. Presumably this plan of organization has attracted to the University students who, intending to pursue medicine, wished a course in Arts before beginning their life's work.

We now have both at Ithaca and New York, a compact, well organized and efficient corps of teachers—they have developed a system of instruction notable for its practical efficiency and thoroughness. Our laboratories have won a name for us, especially in the department of pathology, second to none in this country, and we find that our graduates in competition in hospital examinations and before state boards, with graduates from any or all medical schools of the country, stand amongst the foremost. This result can be accepted as a fair index of their future as practitioners, or as workers in the more exclusively scientific fields of medicine.

We have had the good fortune to carry on this work (with three exceptions) with practically the same Faculty. Professor Flint's retirement to the post of emeritus professor of physiology has already been noted in the report of last year. Professor Kerr has likewise noted the retirement of Professor Gage to the post of emeritus in the department of histology and embryology, and now I deeply regret that in this report I have to chronicle the death of the head of the department of materia medica and therapeutics.

Professor Loomis died suddenly of pneumonia December 22, 1907, having conducted the affairs of his department most efficiently up to within five days of his death. In order to meet the emergency thus forced upon us, Assistant Professor Hatcher was advanced to the position of professor of materia medica and pharmacology. Professor Coleman and Professor Conner carried on the lectures on materia medica and therapeutics as planned for the remainder of the session. The clinical lectures and section teaching which had been done by Professor Loomis were completed by Professor Connor, Professor Coleman and Professor Nammack. While the vacancy created by this death has been in part met by the assignment of Professor Hatcher to all that portion of the work of this department covered by materia medica and pharmacology and by the assignment of the clinical work to Professors Conner, Coleman and Nammack, therapeutics presents to us a more difficult problem. It is now necessary to deal more broadly with this subject than medical schools have heretofore done. It is imperative not only that instruction in therapeutics should cover the remedial action of drugs but that all substances or elements as well as methods employed in the treatment of disease should have a more thorough and systematic presentation than prevails in any of our schools. The course must cover serum therapy, hydro-therapy and massage, psycho-therapy and electricity. Each and all of these agents are now so prominent as remedies and have been in consequence so developed, it is doubtful if when added to drugs, as remedial agents to be known by the graduate in medicine, they all can be properly presented by one head; but that each should be dealt with so as to give the student a working knowledge of them all is becoming an increasingly pressing necessity in any scheme of medical education. This means an adaptation of the plan of instruction which prevails in the presentation of the therapeutical uses of drug remedies, to all remedies no matter what their source. The Faculty at its last meeting appointed a committee to consider this question, and we hope ultimately to have a comprehensive and feasible plan, by which the now very broad subject of therapeutics may secure adequate presentation in our course.

The chair of physiology remains unfilled, but as soon as arrangements, now in progress, for fuller laboratory facilities are completed we hope to have it occupied by a head in keeping with the purposes of the school. Meanwhile, Assistant Professor Hartwell, who desires more time to devote to surgery, will continue the lectures, demonstrations and quizzing as in the past year. Under an arrangement recently perfected this subject has been placed entirely in the second year, surrendering to anatomy the time heretofore occupied in the first. By this transfer much the greater part of anatomy is concentrated in the first year.

For the coming year no change is made in the program of the department of chemistry and physics but I desire to call attention to the admirable work done by Dr. Wolf and Mr. Osterberg particularly in metabolism, for details of which plan I refer to Professor Witthaus' report.

I beg to call special attention to the report from the department of pathology. A laboratory course in comparative morphology will be a feature of the studies in histology in the future. Publications, soon forthcoming from the sub-department of bacteriology under the direction of Assistant Professor Elser, will undoubtedly attract widespread attention to the school as a prominent seat of bacteriological thought and work. The sub-department of pathological anatomy, under Assistant Professor Schultze, continues to present to a very rich collection of gross pathological material, the proof existing in the fact that the present graduating class has during its course with us seen the material from about 600 autopsies, in addition to surgical and museum specimens. The activities of the pure research workers in the sub-department of experimental pathology are reported as steadily enlarging and "the fundamental character of the studies pursued has gradually attracted general recognition." Quoting more fully from Professor Ewing's report, "This result is the logical outcome of strict adherence to University standards in research. None of our staff has been urged to publish anything until ready, and has been encouraged to pursue themes regardless of the immediate outlook for results, some of these themes, as thyroid therapy, have required an outlay of many thousands of dollars and the united activity of five or six persons. I can assure the Faculty and Council that within a year we shall be able to fully justify this financial and moral support, and to demonstrate that Cornell University has established new standards of research. The time is passed in many fields when individual workers can reach important results single-handed. Many men and much money may be required to bring a problem to a definite solution, and I am not aware that any other American institution has recognized this fact and provided to a similar extent men and money for the pursuit of an important problem in hand. The review of the progress of thyroid therapy by Drs. Rogers and Beebe, now in press, will indicate to some extent the justification of this claim. It will be further justified by other studies on the physiology and pathology of the thyroid and parathyroid glands and in the general therapeutic application of thyroid and parathyroid products on which important data have been secured. Dr. Buxton's studies on the physical chemistry of agglutination are of first importance but too technical to attract general attention. The work of the Huntington Fund for Cancer Research has progressed under the immediate direction of Dr. Beebe, assisted by Drs. Buxton, Weil, Shaffer and myself. A definite stage of the work on a sarcoma of dogs was reached when the tumor nature of this process was established and the tumors were made to disappear by direct transfusion of the blood of immune dogs, and by the inoculation of standardized prodigiosus toxins.

Other lines of theoretical and practical interest have been pursued, some of which are described in the 2nd Report. 1908, of the Huntington Fund, which contains 14 contributions. Dr. Stockard will be added to the staff next year. I believe that the trustees of this Fund are well satisfied with the results of their association with this department and wish to continue it. We are hoping to secure hospital facilities for the clinical study of cancer." Concerning the needs and future development of this department Prof. Ewing says, "The needs and deficiencies of the department are numerous and definite. We need the remodeling of the facilities for teaching pathological anatomy and for storing museum specimens. We shall need room to give each student entering under the new curriculum a table and apparatus for working up pathological material. In the future one might hope to have closer affiliation with other general and special hospitals, a relation which would work to the mutual advantage of both laboratory and hospital. Without any more expense in money and without any greater exertion on any-one's part vastly more progress might be made in the pathology of the specialties if such relations existed. We need a larger number of workers in the pathology of general medicine, surgery, and the specialties, and the recognition in the University of the German university principle, that advancement in clinical work can come only to those who have served apprenticeship in the laboratories.

"We need especially centralization of all the laboratory forces under one roof, using one central library, each readily available for the needs of the other, administered with a view to economy in money and energy, and combining when necessary in the pursuit of one theme. This is regarded as the chief need of this department and the chief hope of the future of research and instruction in the other laboratories, and in my judgment it can be met satisfactorily only by an addition to the present building. In the past unusual difficulties, not experienced by our competitors, have constantly arisen owing to the isolation of parts of our working forces. There has been urgent need of hospital facilities for the study of certain diseases, as exophthalmic goitre, epilepsy, typhoid fever, eclampsia, etc., but this need has been met under considerable difficulties by the cooperation of Drs. Thompson, Coleman, Conner and Edgar, in their wards at various hospitals. I believe that the extension of this method is the best practical immediate solution of this difficulty but it is obvious that there is no limit to the possible use of well endowed general and special hospitals working in cooperation with University laboratories. From the present tendency to build isolated laboratories in numerous small hospitals there is little to be hoped other than the better use of already existing knowledge of diseases.

"I would refer again to the advantages the department has enjoyed through the cordial cooperation and community of interests established with other departments, especially with the department of chemistry. Thus far the research forces of the College have been working almost as an harmonious unit. I have repeatedly been told by colleagues in this and other cities, that this relation is everywhere recognized as one of the strongest features of Cornell. As the time comes for the development of other departments I would express the hope that care be taken to preserve this delicate balance in the personality of the laboratory forces, and that no strange or disturbing factor be introduced."

Could the suggestions embodied in this report, concerning a separate building in which all our laboratories with their libraries might be housed, be realized, the spirit of cooperation and devotion to work now so well established with us would insure results toward the advancement of medical science and art second to none that might come from any other institution. I desire to call attention to the economy in time which would be secured, lessening the number of workers required; this with the saving in maintenance would insure a material diminution in cost in that which is the most expensive department of any medical school.

I also desire to call special attention to the report from the department of medicine, which covers that of clinical pathology. A close and widespread cooperation of the department of medicine with all departments of the school is an absolute necessity. Dr. Thompson shows that excellent progress in that direction is being made. To that end Professor Hastings, head of the department of clinical pathology, has been placed as assistant visiting physician to Bellevue Hospital. In order to prevent, as far as is advisable, the too frequent reduplication of clinical demonstrations on the part of section teachers, Professor Thompson proposes to establish a "clearing house" system whereby each instructor shall be required to report at the close of each section period the ground covered and the number and nature of cases presented. The following is a list of the researches conducted during the year:

With Dr. Wolf of the department of chemistry, dietetic and nutrition experiments in cases of obesity.

With the department of pharmacology, use of new preparations of strophanthin and thiosin in a number of cases of heart disease. Results satisfactory.

With Dr. Beebe, exhaustive study of nutrition and the effect of therapeutics in pernicious anaemia, and a number of cases of exophthalmic goitre treated with serum.

Through Dr. Hastings, tested tuberculin opthalmic reaction in some 60 odd cases; also typhoid fever ophthalmic reaction; curative use of tuberculin in cases of glandular and bone tuberculosis tested; tests of the Wright method of opsonic vaccines in cases of septicaemia, with striking results.

Through the Health Department and department of Bellevue Hospital, tetanus antitoxin has been used, blood cultures, etc., for diagnosis in cases shown students.

Dr. Coleman made researches of value in diet in typhoid fever, in study of para-typhoid with Dr. Buxton.

In the Dispensary Dr. William Armstrong has continued the study of gastric analyses and has given several demonstrations before the class.

Dr. Searing has continued the serum treatment of about 20 cases of exophthalmic goitre.

At the Presbyterian Hospital the class has been shown the use of vaccines in malignant endocarditis, and the use of Flexner serum for the cure of cerebro-spinal meningitis.

Dr. Coleman has experimented at Bellevue Hospital with the serum treatment of pneumonia.

The remaining departments each report satisfactory condition. But pediatrics finds itself hampered because of lack of hospital facilities. Being without control of beds in any hospital which cares for children, for the present we are unable to meet this deficiency.

I must also report that the department of psychopathology does not receive at our hands the opportunity it requires. This has been mainly due to the lack of hours available for instruction, and again suggests the propriety of extending the course another year. The increasing demand for a more finished product in the graduate of medicine, if it continues, will force this step upon us sooner or later. We may meet it by at least offering an optional additional year, to be devoted to the more specialized divisions of medicine and surgery. This applies with peculiar force to neurology and psychopathology. Fortunately we have the assurance of greatly increased facilities in these two departments in the extension of Bellevue Hospital and the creation therein of an enlarged psychopathic and neurological service. Properly organized it should furnish opportunity unequalled in this country for the study of disorders of the mind and nervous system, especially acute and transient insanity. In this connection it is important that we increase in our own dispensary facilities for the treatment of the many cases on the border line, which are to be met with all too frequently in homes rather than in hospitals or asylums.

A fitting conclusion to this report is presented in the subjoined summary:

Total No. of students for ten years	3497
Total No. of graduates	582
Total No. of graduates securing hospital appointments.	416

Respectfully submitted,

Wm. M. Polk,

Director of the Medical College.

APPENDIX VI

REPORT OF THE SECRETARY OF THE ITHACA DIVISION OF THE MEDICAL COLLEGE

To the President of the University:

SIR:—I have the honor to present the following report of the Ithaca Division of the Medical College for the academic year 1907–1908.

The registration in the Medical College was this year 65 students, of whom eight were also registered in the College of Arts and Sciences as candidates for the A. B. degree. The total number of students, therefore, is the same as last year, while the number taking the combined course was increased from five to eight. In addition to those studying Medicine, there were in attendance in the department of histology and embryology, 28 students from the Veterinary College, 16 students in Arts and Sciences and three graduate students, while in the department of physiology, there were 33 students from the College of Arts and Sciences, 19 from the College of Agriculture, and four graduate students, the total number of individuals receiving instruction in Stimson Hall being, therefore, approximately 144, with a total registration in all courses of 593 students. Many of the students from the College of Arts and Sciences, thus registered in Stimson Hall, are either prospective Medical students or possess a more or less direct interest in medical science.

The curriculum as followed this year has been the same as last. As has been stated in previous reports, it is greatly overcrowded and yet additional work next year in certain subjects is urgently called for. With the requirement of physics and inorganic chemistry for entrance, which will be in force year after next, a remodeling of the curriculum will be called for and the congestion and certain illogical sequences in the present course of study can doubtless be obviated.

The instruction in the various departments of the Medical school has been carried out with energy and enthusiasm on the part of the teachers, and fine perseverance and application on the part of the student body, with excellent results.

In the department of anatomy there has been the customary attendance in the required courses, while four students have taken advanced work. The instruction has progressed smoothly, "the work of the students has been made more independent and the spirit of investigation has been fostered more strongly. In addition, the recitation work upon systematic anatomy has been concentrated in optional courses which have received the appreciation of the students." Dr. Kerr heartily commends the work of the staff. Dr. Schaeffer and Instructor Baldwin have devoted themselves to the department with untiring energy and in addition have done some excellent research. The work of Dr. Hathaway and Dr. Wright has been excellent and Drs. Pease and Prince have been faithful and painstaking in their teaching. Four of the instructing staff, however, were not devoting their entire time to the work of the department and Dr. Kerr regrets that sufficient compensation is not available for the securing of men who are making anatomy their life work.

The attendance in the courses offered in the department of histology and embryology has been 101 during the present year. Due to the resignation of the first assistant, Dr. E. A. Reed, and in view of his retirement at the end of the year, that he might not determine for his successor the assistants he should have employed, Professor Gage has conducted the work of the department with the help of men who were not devoting their whole time to the department. While they were capable and faithful, the limited time and energy they could give has made it necessary that detailed oversight of the work of instruction devolve upon Professor Gage.

Through the retirement of Professor Gage from the work of teaching, for the purpose of devoting himself exclusively to research, the Medical Faculty will lose a member of great force of character, honesty of purpose, and unfaltering devotion to high ideals of scholarship; the students, a teacher of wide experience whose clearness of presentation and enthusiasm will be difficult to replace. His cooperation will be greatly missed. He retains, however, his private laboratory in Stimson Hall, and while it would be an imposition to claim his ever-ready help and counsel as freely as in the past, it is a satisfaction to know that an adviser of so extensive experience and sound judgment is close at hand, while the example of devotion to research will be an inspiring one for teacher and assistant.

In his last report, Professor Gage offers some suggestions as to the future work in the department over which he has so long presided, that will be markedly helpful for his successor. For the Medical school as a whole, he urges a more carefully worked out curriculum in which there is more coordination and less concentration of subjects and an instructing staff devoting their entire time to the branch they teach, which they intend to make their life work.

In the department of physiology and pharmacology, the attendance this year has been greater than ever before; 113 individuals have received instruction, the total registration in all courses being 241. The work has progressed with smoothness and the teaching has been conducted with energy and enthusiasm on the part of both students and instructors. The work of the assistants in the laboratory has been very satisfactory. Dr. Dresbach, as instructor, has proved himself an excellent laboratory worker of high ideals. His devotion to the welfare of the department and his appreciation of original work fully merit recognition which I hope may be accorded him soon.

In the instruction of Medical students in physiology, the plan of closely coordinated recitations, demonstrations and laboratory work has been employed in the major course as last year and the value of carefully arranged laboratory work in physiology becomes more apparent each year. A closer correlation of the course on metabolism with the work in physiological chemistry is desirable and doubtless will be possible when the schedule is remodeled. The arrangement of rooms used in the department is now fairly satisfactory, although the problem of a demonstration room is still unsettled. The shop room in the basement has been exceedingly useful. A mechanic for the department is much needed. The equipment for instruction in experimental physiology is quite good, but there are still some gaps in the equipment for demonstration and research that need to be filled.

Half of the students registered in the department of physiology were from outside the Medical College. The increasing number of such students indicates the demand that exists for the adequate instruction in human physiology as a basis for an appreciation of the laws of health and as a preparation for secondary school teaching. The course as given needs extension with the incorporation into it of carefully selected laboratory work. At present, both the equipment and instructing staff are inadequate for the proper development of this important side of the work in physiology.

The work in pharmacology has been carried out by Dr. Wilson and Dr. Dresbach along the lines laid down by the professor in charge, and has been quite satisfactory. Dr. Dresbach conducted the course on the physiological action of drugs, while Dr. Wilson had charge of the instruction in materia medica. Pharmacology is one of the youngest (as well as oldest) of the medical sciences, and constituting, as it does, the foundation study for therapeutics, its importance is being more and more recognized. The increased amount of instruction that is being devoted to it in the New York division of the Medical College and elsewhere, requires that more ample provision be made for it at Ithaca. Pharmacology is one of the "pure" sciences in medicine, though closely touching the practical branches, and it can be adequately dealt with only by one who devotes his entire time to the subject as his life work.

The work in the department of bacteriology and pathology has been conducted with the success that has been its marked feature in past years. Sixty-one Medical students were registered in the courses in general pathology and bacteriology and have on the whole done good work. Dr. Moore speaks in the highest terms of Drs. Burnett and Taylor, who have assisted him in the instruction of Medical students. The pathological material available in the department has been steadily increased so that at present there are about 1,000 specimens in gross pathology and 365 series of slides for the study of pathological histology.

Eleven published articles have appeared from this laboratory this year and of these Dr. Moore has contributed eight, Dr. Burnett two, and Dr. Taylor one.

The work in medicine, obstetrics and surgery has been given as heretofore with satisfactory results.

With the beginning of next year the Medical College, under the advanced requirements for entrance, enters upon a new era of great possibilities. It is hardly necessary to state that the Faculty at Ithaca welcome the change although it will mean greater responsibilities for all.

The practical impossibility of obtaining suitable assistants for the salaries available has been mentioned in previous reports and in the future the difficulty will be even greater. It will be necessary to secure men who are capable of advancing the sciences to which they are devoting themselves and they must be given opportunity to do so. This means better remuneration and more leisure for research, and it is only under these conditions that such men can be secured and retained. The facilities for advanced work in the three major departments of anatomy, histology and physiology are good but here, also, additional equipment is needed. I cannot too strongly urge that the means be provided for putting these sciences, fundamental in biology and medicine, on a sound university basis, as the heads of the departments will be expected to maintain the position of preeminence that the Medical school has elected to fill.

By no means second to the maintenance of a high standard in research is the demand for adequate instruction, and in the working out of the future curriculum the responsibility for success rests with the Faculty.

Stimson Hall possesses a most beautiful and commodious library room, and the Medical College is constantly receiving donations of books and periodicals. There is, however, no provision as yet for the care of the books so housed, or regulations governing their use. There is urgent need of some plan whereby this most valuable adjunct of medical laboratories may be properly cared for. Either a librarian might be on duty at stated times, or there might be a clerk of the College who would be officially appointed and also be made responsible for the care of the library.

Technicians such as are in the service of the departments of physiology, histology and anatomy elsewhere, are necessary for the work of these departments in Stimson Hall. As has been set forth in previous reports, a mechanic is necessary for the repair and construction of apparatus in the department of physiology, while a preparator is indispensable for the best work in histology.

As a whole, the Medical College at Ithaca has passed through a year of steady growth in all departments. For its future work, however, additional assistant professors and instructors are needed, and it is sincerely hoped that provision for them may be made in the immediate future.

Respectfully submitted,
B. F. KINGSBURY,
Secretary of the Ithaca Division of the Medical College.

APPENDIX VII

REPORT OF THE DIRECTOR OF THE NEW YORK STATE VETERINARY COLLEGE

To the President of the University:

SIR:—I have the honor to present the report of the New York State Veterinary College for the year 1907–1908.

ATTENDANCE

The two years (1906–1908) have fully justified the prediction that the sudden drop in the numbers of the freshman class in 1905, consequent on the increase of entrance requirements, would be quickly repaired. The class matriculating in 1905 numbered 19 only, while that of 1906 was 32, and that of 1907 was 35, nearly doubling the minimum class of two years before. The small freshman class of 1905, represented by the seniors of the present year, still tells seriously on the total numbers of the regular Veterinary students, (86 for the three classes), and, but for that, and estimating from the matriculants of the past two years, the total attendance would compare favorably with the best year we have yet seen—(1904–1905).

In addition to the Veterinary undergraduates we have had two veterinary practitioners taking work in the College, and 230 from the Colleges of Agriculture and Medicine taking work in the departments of physiology, general pathology, pathology of infectious diseases and laboratory diagnosis and in veterinary medicine, making a grand total of 322 students.

This strongly accentuates the demand for better teaching facilities and a more roomy auditorium as predicted in my report of 1907.

It further implies that our long cherished purpose of extending the Veterinary course to four years is now at last virtually within our grasp. Such a step will necessitate some increase of the Veterinary instructing staff, though for various subjects, such as organic and physiological chemistry and toxicology, botany, cryptogamic invasion of fodders, invertebrate zoology, sanitation of soils, buildings and water supplies, and legal veterinary medicine, University courses may be drawn upon.

DEPARTMENTAL WORK

In anatomy the grade of instruction has reached a very high level, the higher general education of the matriculants enabling the students to do work of a better quality. Existing accommodations have been seriously taxed with 59 students working in the dissecting room at one time, and as soon as possible new equipment should be provided. Anatomy lies at the very foundation of all scientific medicine, and any deficiency here must seriously handicap the student throughout his whole future career. Dr. Hopkins feels strongly the need for more advanced and necessarily higher priced assistants who would not be distracted by their own college work as must senior student demonstrators. Exceptionally very able undergraduates can be secured, who after graduation could not be persuaded to give themselves to this work, but otherwise better results can be had through instructors who give their whole minds to the subject. A dark room for photographic work would be a valuable addition to the plant and could be provided at no great expense in the space provided for the elevator.

In physiology and pharmacology Dr. Fish reports a most successful year, but requires additional apparatus to meet the needs of the growing classes of students. Beside the regular Veterinary students, the class in physiology has attracted 36 students from among Agricultural undergraduates. Special researches have been carried on in the physiological action of drugs, and one student has presented a thesis on personal investigations into the action of phytolacca in the horse. Dr. Fish presented a valuable paper at the meeting of the American Veterinary Medical Association on "Veterinary Education in Europe" and the same appears in the proceedings. He has also issued the third edition of his work on "Veterinary Doses and Prescription Writing." For some years Dr. Fish has taken the main charge of the clinic for small animals, and this year, especially during my illness, he has conducted the medical clinic for large animals as well. If in the reorganization of the College it is decided to follow a common practice in Europe of entrusting the small animals clinic to the professor of pharmacology, his successful experience in this line would assure us that the confidence would not be misplaced.

In pathology and bacteriology the high quality of the work done in previous years has been more than sustained. The success of this department alike in educational work and in extra-collegiate service, in the line of laboratory and field diagnosis especially, has amply justified the liberal equipment with which it was provided from the first, and it stands out in its own field as a striking example of what may be accomplished by skilled and judicious application of a generous appropriation. Beside the regular Veterinary students the department has given instruction to 64 Medical students in the present year, while outside the field of instruction proper in response to calls from the State and private parties, it has made laboratory diagnoses of diseases in 342 animals, it has made and distributed 28,790 doses of tuberculin, 620 doses of mallein, and 9,180 doses of anthrax (so called) vaccine. It has besides, in the current year, conducted an elective course in differential laboratory diagnosis, pathological technic and blood examination, which has been adopted by seven seniors as a substitute for a thesis and with eminently satisfactory results. Dr. Moore has besides found time to prepare for publication seven papers, lectures and bulletins and a second edition of his work on " Pathology and Diagnosis of Infectious Diseases." Dr. Burnett has published a paper on "Anthrax" and a book on "The Clinical Pathology of the Blood," while Dr. Taylor has produced a paper on "Diagnosis by the Agglutinating and Precipitating Power of Glander Serum." Dr. Moore feels that to meet the needs of the increasing classes and the growing demand for services outside the College it is imperative that at least one more skilled assistant should be provided, together with a material increase of apparatus, a post-mortem room for pathological uses, and an experimental farm where questions in pathology and prophylaxis can be practically and conclusively determined.

In surgery, zootechnics and obstetrics the year has been a very successful one. The valuable assistance of Dr. Frost has convinced the professor that his tried and approved service should be secured for next year at an advanced salary. Dr. Williams is urgent for a new operating room with better appointments, also for a team and wagon to reach outside cases, especially obstetric ones. Notable in the work of the year has been the improvement in the technic of the operation for roaring, which is now accepted as superior to anything hitherto done in this line, and restores to usefulness the great majority of the superior animals formerly lost through this infirmity.

In veterinary medicine, parasitism and farriery excellent progress has been made, the more thorough preparation of the entering student enabling him, here as elsewhere, to take a more comprehensive grasp of the subjects treated, and to better fit himself for the practice of his profession. Seven students have prepared theses in the subjects of this department. As president of the American Veterinary Medical Association I prepared an address for the annual meeting, giving a review of the present status of veterinary education in the country and the demand of the times for a general improvement. An article bearing chiefly on veterinary sanitary science was furnished to the Encyclopædia of Agriculture.

In the reorganization that must follow my retirement, due attention should be given to furnish an equipment equivalent at least to that which has been provided for every other department in the College, an equipment which will enable my successor or successors to do justice to the work placed in their hands. It is unfortunate that this cannot be provided for the year 1908–1909, so that each new instructor would not be doomed to that discouragement which must attend on inadequate means. Recognizing the impossibility of this, it should now be the fixed object of the Trustees to see that no new outlay should be made for any other department, in addition to the maintenance expenses already provided, until ample provision shall have been made for veterinary medicine, parasitism, horse shoeing, and veterinary sanitary science. If the legislature provides in the coming year $40,000 for the purpose of putting these subjects on their feet, it will be well; but if not, every available surplus should be husbanded to be devoted to the building up, little by little, of these subjects which have been hitherto ignored in the distribution of the funds.

VETERINARY SANITARY ADMINISTRATION IN NEW YORK

As this last subject has been a very prominent feature of my life work, I may here add a word on its present condition in our own State. After eleven yearly protests, in my reports to the Governor, setting forth the futility of the existing law as administered, and after the enactment of a series of amendments, which showed clearly the hand of the stock dealer rather than the sanitarian, the legislature last year empowered the Commissioner of Agriculture to put a stop to the constant stream of tuberculosis from without which had steadily planted numerous fresh centres of infection in our bovine herds. But we have waited in vain for some evidence of the application of the new statute, and to all appearances it has remained a dead letter.

The result of a continuance of a vicious system, which I have steadily denounced as a means of infallibly extending the area and increasing the intensity of tuberculosis, has been to increase the prevalence of bovine tubercle in fifteen years from 11 per cent to 33 per cent as shown by the best statistics available, official and otherwise. This is not alone because the tuberculous animals in shipment arriving in the State have been systematically reserved to send into our New York dairies while the sound cattle, being eligible for admission to adjacent states, have been sent there, but there has also been a steady advance of the disease in our own State owing to the following: The increase in number and size of our dairy herds; the adoption of a habit of selling cows that are failing in their yield of milk, owing to the interval since calving, and replacing them by fresh cows from herds which are in too many cases infected; this great increase in traffic in dairy cows without any sanitary supervision involves a growing exchange of tuberculous animals and the more frequent introduction and diffusion of disease in herds; the great extension of the use of the separator and the return of the uncooked, unsterilized skim-milk to be fed to, and to infect calves and pigs, thereby planting more and more new centres of disease; the steady introduction into dairy herds of thoroughbred bulls (and cows), drawn from herds of high individual value and therefore preserved for breeding, sound or unsound; the lack of attention to the conveyance of infection from cow to cow and from herd to herd through barn vermin, birds and insects; the increasing use of "bovovaccine" with the object of immunizing the herds, the result being too often but a temporary irresponsiveness to the tuberculin test which allows diseased animals to be sold as sound; finally, the repeated use of tuberculin on the same animal so as to produce a corresponding irresponsiveness to the test so that the seller at least has secured an immunity from prosecution based on a condemnation by the tuberculin test. Still another practice has been introduced, namely, to subject the system of the cow, one or two days before the prospective test, to the action of tuberculin so that she will on the third day fail to react when tested.

The last three conditions are comparatively new and, though long foreseen, it seemed impolitic to extend their use by drawing the attention of dealers in cattle to these means of covering up the evidence of the sale of the diseased. It is now too late to attempt to limit the evil by longer keeping silence, the practices are now widespread and the new conditions must be met by new sanitary measures. In the last few years almost every cow introduced into our University herd, though a thoroughbred animal and introduced on the guarantee of a tuberculin test, has, in six months or more after arrival on the farm, responded to the tuberculin test and, when killed, has shown the existence of tuberculosis. Fortunately only one of the original University herd, which has been kept sound for twenty-six years, has contracted the disease from these importations. That the University herd has remained sound shows clearly that these newly arrived animals could not have contracted the infection in our stables but must have brought it in with them.

These recent conditions detract nothing from the value of tuberculin, when employed as it could have been ten or fifteen years ago. Then it could have been used successfully to secure a basis for a comparatively easy suppression and extinction of tuberculosis. Under the misuse of it and of "bovovaccine," the tuberculin is no longer of itself sufficient to show tuberculosis in an animal that has been tampered with, or that may have been. The new conditions demand new and more searching measures. These must be based on the attested soundness of the herd from which the animal is to be taken.

Imported cows must be either excluded or admitted only on certificate of the former owner that they have been for years in his herd and that no tuberculosis has existed in that herd for three years antecedent; further, they must be tested with tuberculin, their destination recorded, and they must be retained at such first destination for six months and then retested. It will be alleged that dealing in cows from outside the State will thus be made impracticable, but dealers must remember that it is largely due to their obstinate persistence in our vicious system of the past, and their steady and unfortunately successful opposition to any legislative improvement, that we have been reduced to our present deplorable condition, which necessitates the measures proposed. Fifteen or even ten years ago the elimination of tuberculosis from our herds would have been easy and relatively inexpensive; today, thanks to the reckless movement of cattle, sound and unsound, it will be difficult and much more costly. A sanitary control, which will make importations safe in the future, is of incomparably more importance to our live stock interests than the profits of a reckless trade, ruinous to our 1,800,000 milch cows, can possibly be to the dealers who are engaged in such trade, or than the trade can be to the commonwealth.

The same measure, meted out to the dealers in cattle from outside the State, should be dealt out to the owners of cows sold or transferred inside the State. No cow or. store cattle should be transferred from one place or herd to another within the State, unless the seller or transferrer can give a guarantee and bond that there has been no tuberculosis in the herd for at least three years prior to the transfer and that no additions have been made to the herd in that time, save from herds guaranteed in a similar manner. The animals transferred and the herd from which they were taken should further be tested with tuberculin, and any reaction under the test should bar any transfer from that herd.

This will entail a large outlay for marking, registration and supervision, post-mortems, etc., but it will at once place sales and transfers on a sound and safe basis, will stop at once the extension of infection, and will lead every herd owner to set about purifying his own herd that he may secure an open and profitable market at the earliest possible moment. This the owner may secure by State aid, or more slowly by the Bang method, but in either case the final result will be certain and of immensely greater consequence to the commonwealth than the whole outlay made for extinction of the disease. The stockowner to whose herd a shadow of suspicion attaches has no moral right to transfer an animal from that herd to another, while the dairyman or breeder, who has by his judgment, care and good fortune preserved his herd free from infection, is entitled to every advantage which a full guarantee of soundness can bring him.

The most dangerous element in the trade is the middleman who buys from all sources, mingles his purchases in his own stables and yards, and distributes them far and wide among his customers. In his hands certificates, markings and guarantees are liable to become complicated and uncertain, and if his trade is not absolutely put a stop to during the emergency period it should be allowed to continue only under the most stringent supervision. The details of the system would be out of place here, the leading principle alone can be referred to.

The other plagues of animals are quite as much in need of intelligent supervision as is tuberculosis. Contagious abortion is almost as widely extended as the dairy industry, and is even more occult and elusive than tuberculosis. It is even worse in this, that long after individual immunity has been established the infecting germ is still carried by the animal. A control of transfers should be at least as exacting and as far-reaching as for tuberculosis. Canine madness is not suppressed or extinguished, as it might easily be, but is constantly increasing. Glanders prevails in the large cities through ineffective legislation and administration. Many of the other animal plagues, like strangles, equine influenza and contagious pneumonia it is not even attempted to control.

NEEDS OF THE NEW YORK STATE VETERINARY COLLEGE

Anatomy: To secure sufficient laboratory space another story can be put on the dissecting room, and a preparation room furnished on the site of the present small-animal house	$1,500
A dark closet for photographic work	200
One graduate instructor	500
Physiology and pharmacology requires instruments and apparatus to be used in the small animals clinic	100
For laboratory assistants (extra)	250
Pathology and bacteriology. Extra laboratory material	100
Additional laboratory assistant	
Experimental farm	
Surgery and obstetrics: New operating room and fittings (voted by council).	
Share of team, wagons, groom and buildings for same	
Medicine: One extra professor to conduct outside clinic and share in class room work	3,000
Teams and wagons to use in outside clinic and necessary College work (already voted by Council).	
Ambulance	500
Extra groom	480
Buildings for shelter of team, wagons, etc.	1,000
Buildings for medical and sanitary clinics, instruments and apparatus	30,000
Experimental farm in connection with sanitary work and for breeding of animals.	

Unless other provision can be made for the equipment of the department of medicine and sanitary science every dollar, in addition to past maintenance appropriations for the other departments, would be fairly and justly devoted to the department in which the new instructors are appointed. In securing men to begin work in a field which is comparatively new to them, they should be furnished with the means of doing full justice to the students, to the College and to the State. Any additional expense incurred in making such a movement is no longer to be looked on as simply taking an advanced position to which other veterinary colleges may aspire, but rather as a means of preventing other such institutions from distancing us in the race, and displacing our College from the leading place which it has long so proudly and advantageously maintained. Illinois is now engaged on a state veterinary college for which $250,000 has been provided for buildings and equipment‘ and $30,000 for yearly support. Pennsylvania has secured from state and private gifts for its veterinary college a sum estimated at

$500,000; other states are steadily advancing in the same direction. If New York should add to her long established record of the neglect of practical veterinary sanitary work, the further discredit of having to assume a second or third place in veterinary education, it must tell disastrously in depreciating the reputation and value of our live stock.

Respectfully submitted,

JAMES LAW,

Director of the New York State Veterinary College.

APPENDIX VIII

REPORT OF THE DIRECTOR OF THE NEW YORK STATE COLLEGE OF AGRICULTURE.

To the President of the University:

Sir:—The present year has been signalized by the College becoming thoroughly established in its new buildings. This is no small event either to the College or to the people of the State. It is the epoch to which friends of agricultural education have looked forward since the founding of the University. Whatever the College has been able to accomplish in the past for the rural interests of the State, it ought now to be able greatly to extend its usefulness and influence; and the many enterprises for which it stands now have a tangible abiding place, to which accretions will necessarily be made from year to year in fulfillment of a definite plan. This plan is, to have every rural interest of the State adequately represented in higher education.

The year has seen only one marked change in the personnel of the College. This change is the departure of Professor Pearson, on April 19, to become Commissioner of Agriculture of the State of New York. Professor Pearson's connection with the College, as one of its staff, began with the reorganization of the College five years ago. He has been instrumental in building up a dairy department that is characterized by new methods, a fairly perfect organization, and great teaching effectiveness; and he has made a reputation with the farmers and others of the State for integrity, ability and helpfulness. While it is a distinct loss to the College to have him sever his connection, we nevertheless feel that he is called to a larger service, and we are confident that the educational and investigational efforts that are now expending themselves in the interest of a better agriculture will find marked expression in the administrative programs of the State.

A marked departure in agricultural college work,—or in any college work, for that matter,—is the establishing of the sub-department of limnology. This work is in charge of Dr. J. G. Needham, well-known as a painstaking and inspiring teacher and investigator. This department investigates swamp and aquatic life, particularly with reference to the study of the forage food of fishes. This subject is of great importance to New York, since the State contains so many lakes and streams that should be a source of food supply. While we are stocking some of our lakes with game fish, the agricultural utilization of our waters is yet scarcely begun.

The number of students continues to increase. In fact, the number is now so large that we are facing a serious question as to how we can accommodate more persons with justice to the students and satisfaction to ourselves. The great new buildings, which seemed so ample when they were planned, are now filled to every corner in basement and attic, and some of the departments are not yet housed. There is no auditorium large enough to hold all the students, let alone holding the staff also. The Agricultural College community now comprises about 500 persons, and during the winter course period about 750. The main auditorium seats 610. Nearly all the laboratories and class rooms are already crowded. It is even now a question for the State to take cognizance of, that the College is taxed to its full capacity in respect to both teachers and quarters. This really should be a matter of congratulation, and the State should willingly provide additional quarters, facilities and staff. The College is full to overflowing of farm youth. This is what the College is for.

Following is the registration in the College of Agriculture for 1907–1908:

Graduates	47
Regulars	209
Specials	140
Winter Courses	268
	664
Counted twice	12
	652

REGISTRATION IN WINTER COURSES

General Agriculture	105
Dairying	95
Poultry Husbandry	43
Horticulture	18
Home Economics	7
	268

The College of Agriculture is not a technical institution in the sense of carrying one definite curriculum leading to a profession or a single occupation. It comprises a great variety of subjects, all so organized as to form part of a liberal education in terms of country life. For this reason, as well as because students are increasing rapidly, the expansion of the College should be rapid for many years to come. Certain great subjects are as yet included only under serious limitations. This is markedly true of the agricultural relations of chemistry, a department that should be adequately housed in the College of Agriculture. Certain of the biological subjects need to be extended. A regular normal department to train teachers to teach agricultural subjects in rural schools, is much needed. Aside from this, certain of the technical agricultural subjects are yet imperfectly supplied, particularly in the direction of the animal husbandries. My report of last year indicates a few of the most urgent needs of the College, some of which are not yet provided, as adequate land, class rooms and laboratories for the poultry department, sufficient live stock, a normal department and a forestry department. A year ago the State appropriated $25,000 for barns, and this will make a good beginning. An item is now pending in the "Supply Bill" to provide $30,000 for glass-houses for the various departments, and this also will make a good start.

The many and diverse pedagogical interests that are represented in a modern college of agriculture make it very difficult to prepare a homogeneous and logically correct curriculum. There is from time to time a movement to introduce technical agricultural subjects into the first two years, and there is much to say in commendation of it; but in the end the choice must always be made between such subjects and those that are held to be fundamental or preliminary to the technical courses in the junior and senior years. In certain institutions it is considered to be advisable to introduce such courses in the early years in order to hold the students; but with us we desire less to hold students than to train them well. For those who cannot remain longer than one or two years, we provide various special courses. It is undoubtedly desirable to introduce the student to agricultural subjects as early as possible, so long as the subjects are taught for the purpose of really training the man and so long as they do not crowd out more essential subjects; but the solution of the difficulty seems to lie in the redirecting of customary courses—in a new method of teaching—rather than in the mere addition of other courses under agricultural names. This may mean eventually that the College of Agriculture itself must teach much of its fundamental work. This will raise questions of far-reaching importance to the status of the College.

My chief desire at the present time is to press the fact that the College of Agriculture is but beginning its work, and that it must expand greatly if it is to serve the State to the extent that the citizens expect. I hope that the College proves itself day by day, and that it does not need to wait for greater accomplishment before it acquaints the people of the State with the legitimate needs of the institution; in fact, the longer we withhold, the greater will be the difficulty of serving the people adequately.

Respectfully submitted,

L. H. BAILEY,

Director of the New York State College of Agriculture.

APPENDIX IX

REPORT OF THE DIRECTOR OF THE COLLEGE OF ARCHITECTURE

To the President of the University:

SIR:—I have the honor to submit my annual report for the year 1907–1908.

So far as may be judged from a near point of view, the year has been one of the most successful in the history of the College. For the first time we have registered more than 100 students, an increase of 25 per cent over the registration in 1906–1907. The general standard of work maintained has been unusually high and our students in design have throughout the year carried off the major honors in such of the Beaux Arts competitions as their schedule has permitted them to enter.

In the absence of the Director on leave during the second half of the year Assistant Professor Phelps has been in charge of the work.

Much serious thought has been given during the year to a revision of courses, with reference both to strengthening the present four year course and to formulating a five year course. The most marked improvement in the four year course has been in the reorganization of the work in the mechanics and engineering of architecture along the general lines recommended in my report for 1906–1907, though we are still obliged to depend upon the College of Civil Engineering for instruction instead of having a specially trained architect for the work.

The Faculty of this College is in hearty accord with the principle of a five year course advocated for the technical Colleges in your last annual report, and a committee of the Faculty has formulated a course that I hope may be adopted to go into effect next year. This course would not supersede the four year course but would parallel it as an alternative. The entrance requirements would be exactly the same in amount of work required but would allow the student more latitude in choice of subjects offered. The amount of technical work required for the degree would be exactly the same as in the four year course, the additional time being devoted to work in arts and sciences either prescribed or elective.

Inasmuch as the majority of students electing technical courses are over-anxious to begin the work of their choice and are exceedingly impatient of anything that seems extraneous, and as there are always a few who elect a course without any special fitness for the work, it has seemed best to those formulating the five year course in Architecture to introduce enough technical work at the beginning to satisfy the enthusiast and to "try out" the uncertain element, so that mistakes may be rectified as early as possible. As a part of the same idea it has been deemed best to reserve time for electives in the later years of the course when the student has become in a measure sated with his technical studies and has reached a stage in his development that will enable him to take a keener and more intelligent interest in studies of a more purely cultural nature.

The increased attendance is very gratifying in many ways, though not without a troublesome aspect. It not only threatens to render our new quarters in White and Franklin Halls inadequate at an early date, but for the first time we are brought face to face with the necessity of dividing our classes into sections, a situation which must inevitably call for an increase of the teaching staff. During the past year we have had as many as 40 students in a single section in drawing with one instructor, a condition that even with the hardest work on the part of the instructor must allow from 10 to 15 students to go without a criticism at each session of the class. While there are times when this is no serious disadvantage, especially with advanced students, there are other times when it works as a very serious disadvantage to the less resourceful students in the more elementary classes, and these are just the classes that are likely to be largest.

For the past two years the drawing in connection with the courses in landscape design in the department of rural art in the College of Agriculture has been done in the large drafting room in White Hall under the direction of Assistant Professor Fleming and Mr. Taylor, both of the College of Agriculture. This was a temporary arrangement before the new buildings of the College of Agriculture were opened for occupancy, but it proved so advantageous on account of the very close relationship between landscape design and architecture that it was continued through the year just closing. However, with 100 students in Architecture and about a dozen in landscape design the drafting rooms were completely filled, so that any further increase in the number of Architectural students must inevitably crowd out the landscape students. I bring this matter up here because I am much interested in these courses and because I believe that they can be carried on much more successfully under the present arrangement than if the landscape students were removed from their close relationship with the drafting rooms and library of the College of Architecture. The work occupies a unique position between Agriculture and Architecture, belonging partly to both, yet in reality to neither; but it is a course that should by all means be fostered and encouraged by the University and I see no better plan for the present than that of keeping it in the College of Agriculture where the major part of the work is given, but it seems to me that the present close relationship with the work in Architecture should be continued if possible.

In accordance with the established policy of the University, the College of Architecture has been teaching freehand drawing to certain students in Arts and Sciences and in Agriculture. At first such students were admitted to the regular classes, but it was soon found that the standard required for the Architectural students (because of other parallel courses in drawing and design), was so much higher than could be attained by the general student that separate classes with a different standard were necessary. Then, too, the theory which I have held that all freehand drawing in the University should be taught by the College of Architecture, because for the purposes of Architecture drawing is taught in the broadest possible way, seems hardly tenable on closer contact with the work and the needs of the students. I am now convinced that for the majority of students in those courses where drawing is studied as a means to an end in scientific work, rather than as a medium for artistic expression, much better results can be attained if the end in view is considered from the beginning. The College of Architecture has no theories as to what it should or should not do as a matter of right or privilege in its relation to other Colleges in the University, other than that all should work together for the good of the students who come to Cornell for instruction. With this and only this in view, I would advise that as soon as feasible, proper provision be made for teaching drawing in the other Colleges where drawing is required, believing that much better work can be done for science students by competent teachers working directly with the scientific department in which the drawing is desired. For those students desiring drawing as a purely cultural accomplishment, I still believe that the courses in drawing offered by the College of Architecture are best.

Respectfully submitted,
Clarence A. Martin,
Director of the College of Architecture.

APPENDIX X

REPORT OF THE DIRECTOR OF THE COLLEGE OF CIVIL ENGINEERING

To the President of the University:

Sir:—I have the honor to submit the following report for the College of Civil Engineering for the year 1907–1908.

The registration for the year, as shown by the class roll calls, has been as follows, classifying according to subjects taken rather than by official standing as in the register:

	First Term	Second Term
Graduates	6	6
Seniors	82	81
Juniors	146	122
Sophomores	148	137
Freshmen	149	181
Special Students	2	2
Total	533	479

This list includes 45 graduates in the undergraduate courses.

Of the new students, eight entered the sophomore, 11 the junior and three the senior class.

This shows a healthy growth from last year, the registration then being 469 for the first and 449 for the second term, or an increase of 37 and 48, respectively.

Instruction has also been given to students from other Colleges as follows:

	First Term	Second Term
Sibley	349	644
Architecture	90	22
Arts	25	23
Agriculture	9	7
Graduates	45	45
Total	518	741

The College has had during the year all of Lincoln Hall at its disposal. In addition it required room in other buildings for 14 classes the first term, and for nine classes the second term. Some difficulty was experienced in securing these rooms which emphasizes the importance of providing for further growth at an early date. In my report a year ago, I called attention to the importance of having a larger students' reading room, more space for experimental work in concrete and reinforced concrete, and a lecture room that would seat all of the members of one class or about 150 students. The College has also reached a point where it should have very much more space for its testing laboratory.

The fact that the number of students in attendance in the College has doubled in five years explains the situation. It is indeed gratifying to see such a growth and it speaks well for the instruction given. It does, however, tax resources to the limit, for with this growth more instruments, more apparatus, more space and a larger instructing staff are required. If Lincoln Hall could be enlarged by the extension of one of the wings eastward, to the east line of Goldwin Smith Hall, at an early date, the additional room that it would afford could be used to excellent advantage.

A year ago some few changes were made in the courses of instruction. Descriptive geometry was moved from the sophomore into the freshman year, made a recitation course, and combined with first year drawing. The results so far indicate that the change was a good one.

A new course in reinforced concrete construction was established. The subject is an important one, as is attested by the fact that 65 students took the course.

A new course in steel building construction was established, which is considered an important one, and 26 students took this course.

The work of the College in sanitary engineering was strengthened by adding more chemistry to the course. A course in purification and control of water supplies was also added.

It is my opinion that the subject of sanitary engineering should receive very careful consideration. It is one of vast moment to the people of the State and of the United States, and it will of necessity become of more and more importance as the population of the country becomes more dense.

There was added to the work of the College, in railroad engineering, a course in railroad operation and management, and one in railroad construction and maintenance. The latter is a course given especially for students in Sibley College, and 42 of them were registered in it during the year. The former is for students in Civil Engineering and 14 were registered in it during the year.

I feel it my duty to emphasize the importance of the work of the College in hydraulics. While our present teaching in this line is excellent, we will of necessity have to extend our work for the reason that there is bound to be a tremendous development along new lines in this subject. The last century was called the "age of steam." The present one will as appropriately be called the "age of water." Aside from the uses of water for domestic and sanitary purposes, there are three other fields in which it will play an important part in the economic development of this country. These are navigation, irrigation and power. In many instances there will be combinations of these and while we may not expect much from the use of a given supply for both navigation and irrigation, we may expect a great deal from the combinations of navigation and power, and irrigation and power. It is practically certain that the future improvement of our great river systems of the eastern half of the United States, will be along the line of getting the maximum benefit out of the first combination, or navigation and power. So the water resources of the western half of the United States will be developed with a view to getting the maximum benefit out of the second combination, or irrigation and power. The magnitude of these fields can hardly be realized, and to cope with them it is practically certain that a type of the civil engineer highly specialized in hydraulics, will be required. Cornell must not be found wanting in producing this type of man.

The "Honor System" which was adopted by the students in Civil Engineering in the fall of 1906, has been reasonably successful. It is hoped that it will ultimately reach a point where it will be a "law of the College" which every student who enters will feel bound to respect.

Respectfully submitted,
E. E. HASKELL,
Director of the College of Civil Engineering.

APPENDIX XI

REPORT OF THE DIRECTOR OF THE SIBLEY COLLEGE OF MECHANICAL ENGINEERING AND MECHANIC ARTS

To the President of the University:

SIR:—I have the honor to submit the following report of the work of Sibley College during the year 1907–1908. A large part of the work has been carried on as usual and this report deals, first, with those things that are in process of change; secondly, with certain needs of the College which must be supplied to insure that in the future the best technical training shall be offered here.

SHOPS

The changes in the shop instruction indicated in the last annual report have been carried out more fully. Two molding machines have been installed in the foundry and their operation has very greatly increased the effectiveness of the instruction by showing the students the methods of producing castings in large numbers at low cost.

A change in the sequence of the shop courses is proposed and will be made next year. The work in the foundry and forge shop, hitherto given to sophomores, will be given to freshmen and the pattern making will be transferred from the first to the second year. It is believed that the student who has used patterns in the foundry for the producing of castings, will be able to accomplish more in making patterns because of a better understanding of their purpose.

It is also proposed to modify somewhat the instruction in the blacksmith shop. The growth of the electrical manufacturing industry has necessitated the introduction of many new processes for the cold-working of metal and it is hoped that it may soon be possible to introduce machines which have been developed in response to this need. All of the essentials in the teaching of hand forging will, however, be retained.

The teaching of the "principles of manufacturing" in the machine shop which was recently introduced was continued very successfully, and the accompanying class room work has gained in breadth and effectiveness.

MACHINE DESIGN

In the department of machine design a development has been going on for several years the object of which is to concentrate into three years of the course all of the necessary fundamental training in drawing and machine design. This plan, which is now practically complete, leaves the senior free to elect his work in design from among a number of special lines of work. Thus, he may take electrical engineering, where the work of design is chiefly computing, or he may take naval architecture including the design of ships, or railway mechanical engineering with the study of the design of rolling stock, or internal combustion engine design, or the design of steam turbines or of reciprocating steam engines; or, if he does not care to specialize, he may take a general course in design.

EXPERIMENTAL ENGINEERING

In addition to the regular work as it has been carried on heretofore in experimental engineering, there has been installed and put into operation during the past year the electrical apparatus required for a junior course in electrical laboratory work. This course is required of all students. Although this is the first year that this work has been given it has been carried on very efficiently and it is a very desirable addition to the engineering course in Sibley College.

Last year the York Manufacturing Company presented to the University a large refrigerating plant designed especially for investigation and laboratory instruction. Other firms have generously contributed auxiliary apparatus and material making the plant complete for operation. The installation of this plant cost the University about $750. The value of the complete outfit is probably about $10,000. The installation of this machinery makes it possible to give effective instruction in another very important main division of mechanical engineering.

Also during the year a Babcock and Wilcox boiler of 100 horsepower capacity, of the marine type with superheater, has been purchased and installed. The manufacturers generously furnished this boiler at about half the regular purchase price. The installation of this boiler brings our steam making equipment up to the most modern practice, and gives ample capacity.

The establishment of the laboratory for internal combustion engines and accessories, which was described in last year's report, has increased the capacity of that work and has relieved slightly the crowding in the main laboratory. The equipment of this laboratory has been increased during the past year by the gift of a Franklin automobile engine and by the installation of a small "suction gas-producer."

POWER ENGINEERING

In response to a demand due to a growing use of the internal combustion engine, two lecture courses and a design course have been given for two years past. This subject is of such great importance that it is necessary to provide for a large number of students who wish to elect it as a specialty. Hence this work will be developed more fully along the line of class work and design during the coming year and this work will be carried on in cooperation with the laboratory work on internal combustion engines.

Following the example of the department of electrical engineering, we have, during the past year, introduced into the senior work in power plant design the use of "computing periods." Instead of working out assigned problems outside of the University, the students now assemble in sections in a large room under the care of an instructor, where they do all of the work in connection with the lecture course. This plan has the advantage of holding the men up to their work at a specified time, and also makes the work more effective because of discussion among the members of the section with each other and with the instructor. It is hoped eventually to introduce this method into all work where it is possible to use it.

GENERAL

The reading and assembly room in the first floor of the middle section of Sibley College has served, during the past year, for the students who wished to study at the College and it has also been useful during the interval of change between hours for social purposes. In connection with this room the department reference library has been established with an attendant who is always present during University hours. The portion of this room that is partitioned off for the library is supplied with large tables where students may consult the books. When possible several duplicate copies of much used books are placed on the library shelves. It is thought that the accessibility of these books will help in the training of the students of the College in collecting and organizing published material.

PRESENT NEEDS

Sibley College today has two pressing needs requiring considerable expenditure. First, is the need for a new building for housing the machine shop and the wood shop. In the present location, which is necessarily temporary, there is naturally a good deal of hesitation about installing machines or systems with an idea of permanence. The machine shop especially needs many things which have developed in the modern shop practice which cannot be had in the present quarters. This, however, is not the most important thing connected with the providing of a new shop building. Vacating the present building would render space available for the expansion of the experimental laboratory which is now the only crowded department of Sibley College. The electrical experimental work is given in widely separated rooms and it is believed that all the apparatus should be brought together in order to produce the best results. A shop building for the accommodation of the machine shop and the wood shop, of fireproof construction and with all necessary modern improvements, could be built and the transfer of apparatus could be made in addition for a sum not exceeding $50,000.

The second need is for an annual appropriation for research. It is believed that it is very desirable for a technical school to have research work constantly under way because, first, it is thus doing its part in the making of additions to the data of engineering; secondly, because a laboratory of research is a most stimulating influence both to students and teachers. In some western institutions generous appropriations are made for work of this kind. Thus, at the University of Wisconsin an annual income of $5,000 is available for equipment in purely mechanical engineering work. At the University of Illinois a laboratory of experimental research has been established and is maintained by the state. If Sibley College is to maintain its position and prestige it will be necessary to make provision for work of this kind. If an annual income for this purpose of $5,000 could be made available it would be possible, with our present equipment, to produce results that would be of very great advantage to the engineering world and to Sibley College.

Respectfully submitted,

Albert W. Smith,

Director of the Sibley College of Mechanical Engineering and Mechanic Arts.

APPENDIX XII

REPORT OF THE DIRECTOR OF THE SUMMER SESSION

To the President of the University:

SIR:—I have the honor to present my third annual report as Director of the Summer Session.

THE TEACHING STAFF

The teaching staff of the present year consists of fourteen professors, twenty-five assistant professors, twenty-two instructors and seventeen assistants. Of the thirty-nine teachers of professional grade thirty are members of the Cornell University Faculty, and nine come from other institutions. Of the nine there have been here prior to this year Professor George E. Condra of the University of Nebraska, Mr. Arthur D. Dean for the past two years engaged in special investigation of industrial conditions in Massachusetts and in the organization of trade schools there, Mr. Charles W. Furlong, long and favorably known to the Cornell University community, and Mr. Charles M. Stebbins, teacher in the Boys' High School, Brooklyn. Mr. Dean has just been appointed Chief of Division of Industrial Education in the New York State Department of Education. In this way he becomes officially connected with an important branch of education in this State. Mr. Dean has worked with energy and with good judgment in the developing of manual training as a part of the work of our Summer Session. In this he has been most successful. We are sorry to lose him from our Faculty but welcome him as a co-worker in the larger field.

We have had the cooperation and assistance this year for the first time of Mr. James H. Van Sickle, Superintendent of Public Instruction, Baltimore, Md.; of Professor J. L. Meriam, of the University of Missouri, who was formerly a member of the graduate school of Cornell University; Professor James A. Woodburn of Indiana University; Mr. Paul B. Mann, a graduate of this University and now teacher in the Morris High School, New York City; Mr. W. W. Clendenin, teacher in the Wadleigh High School. Further we have had a most efficient assistant in the department of botany in Mr. Layton S. Hawkins from the State Normal School at Cortland, N. Y.

To all of these gentlemen and no less to the members of our regular University Faculty is due the public acknowledgment which I am glad to make here of loyal, eager and devoted service to the work of the Session. The success which has attended our efforts is due to this devotion on the part of the teaching staff. It is quite as true of the Summer Session as of any other phase of university work that it is the men who count. The members of the Faculty have been ready to seize every opportunity for assisting and encouraging their students. They have spared themselves no pains, and have devoted time and energy without stint to the general interests of the students as well as to their own particular field of work. To this generous and helpful attitude of the Faculty the steady and gratifying increase in the number of students is largely due.

STATISTICS OF ATTENDANCE

	1903	1904	1905	1906	1907	1908
Teaching Staff	54	60	58	62	68	71
Number of Students	470	*718	619	642	755	841
Cornell University Students of previous year .	259	246	294	225	288	372
Former Cornell Students .	63	59	59	85	92	84
Graduates of Cornell University	13	23	25	23	19	15
Graduates of other colleges	85	97	100	129	131	125
Non-graduates from other colleges	45	60	59	70	95	107
Teachers................	154	*356	218	263	302	294
Holding first degrees.....	90	95	111	133	123	173
Holding higher degrees...	23	25	19	21	27	26
New York State	201	244	238	288	320	326
Outside New York State .	269	*474	381	354	435	515

Of the teachers in attendance there were engaged in teaching in:

	1905	1906	1907	1908
Colleges	27	27	22	32
Normal Schools	12	15	18	12
High Schools	61	96	111	147
Grammar or Elementary Schools	93	95	120	82
Private Schools	5	26	17	8
Superintendance and Supervision......	3	6	14	13

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*Includes 145 Porto Rican teachers admitted under special arrangement with the U. S. Department of Education.

Students have come this year from 42 states and territories of the United States and from 17 foreign countries. Among the latter, China is represented by 30 students, Argentina by seven, India and Cuba by five each and the 13 other countries by smaller numbers. The teachers in attendance come from schools in 28 states and three foreign countries. As for several years New York City furnished the largest number, though fewer than last year. Otherwise the geographical distribution is about the same as before. There is a marked increase in attendance from New Jersey, Maryland and Virginia.

The increase in the number of attending teachers from colleges and high schools is gratifying. It proves that our work is appealing more and more to the strongest and most ambitious teachers in the higher grades of educational work. There is a marked diminution in the number of teachers from elementary schools. As these teachers are with hardly an exception women, I ascribe the change in part to the lack of the attraction furnished by the dormitory on the campus this year, and partly to the fact that we offered this year less specific instruction in elementary subjects. The change in the number of Cornell graduates as against last year is exactly the same as that of last year's attendance when compared with 1906. I have no further explanation of this than that offered in last year's report. We must bear in mind, however, that so long as a small proportion of our graduates enter teaching, Cornell loses for this reason a valuable opportunity of having her claims as an educational institution presented to the brightest and most desirable pupils in secondary schools. The importance, therefore, to the University of the presence here of 147 high school teachers can hardly be overestimated. It is encouraging to note the increase in the number of men, mostly principals and superintendents. Furthermore, every year sees persons coming to enter regular courses for degrees, both in the graduate and in undergraduate departments, who have gained their knowledge of the University and their desire to stay here longer from an experience in the Summer Session. The increase in the number of our own undergraduates is due primarily to the extension of instruction to include various courses which appeal to them. I am glad to say that the increase is not due to a larger number of men who are deficient in work of the previous year. The most emphatic testimony as to the high quality of work done in the Summer Session comes from all members of the Faculty.

SCOPE OF THE WORK THIS YEAR

With one or two exceptions there has been little change in the general character of the courses offered. We have been able to continue the progress made in English last year with a gratifying increase in the attendance in this important subject. I believe that it is now well established, and that we shall be able to increase the range of the work in it. Through conferences by the professors in biologic subjects represented in the summer, the work in this field was coordinated and so arranged as to permit a large variety of combinations in the choice of studies. The result has proved most satisfactory, and a progressive and harmonious course in this field is now possible for summer students. The special course in high school biology, established last year and following the syllabus of the State Department, has been continued with marked success.

A somewhat similar course has been introduced this year in physics, and has met with immediate recognition and approval. In this the instructor has had the assistance of sample collections of apparatus for high school purposes loaned by the manufacturers. This is an excellent arrangement which gives teachers an opportunity to familiarize themselves with the exact conditions under which their experiments in the school room must be performed, and further gives them an opportunity to select the best and most economical equipment for their needs. One cause of failure in teaching is the changed conditions under which the college trained man or woman must work in the limited laboratory facilities of a school. Accustomed to the finest of apparatus and to the almost unlimited range of experiment possible in the university laboratory, the novice is helpless, or severely crippled, by the crude or inadequate apparatus of the school in which he begins teaching. Further he must often take the responsibility of purchasing equipment. He is regarded as an expert and the selection of equipment is left to him. Without a specific knowledge he sometimes becomes the victim of agents with fine appearing but expensive and unsuitable outfits.

Six new courses have been added in chemistry this year with gratifying results. There was an immediate response to the opportunity for more advanced work, especially in organic chemistry. It is interesting to note the attendance of persons classed formally neither as students or teachers. Correspondence shows that this class is numerous and I believe we may expect increasing numbers of such persons in the future.

The five courses in first and second year work in French, German and Spanish have been well attended. In German, in fact, it seems likely that an additional section will be needed next year to care for the large numbers in a proper manner. The principle upon which these courses are based—that the equivalent of one year's work in the high school can be done in six weeks with twelve recitations each week—is established. This successful demonstration ought to be taken into account in any discussion of equivalents in high school work.

Manual training in all grades has received the most careful attention in both theory and application. The attendance has been larger than ever before, especially of men who have charge, either as a part of their work as superintendents, or as supervisors of the subject, of this work in city school systems. One of the finest features of the instruction has been the weekly conferences under the direction of Mr. Dean, who has had the constant aid of Professors Kimball and DeGarmo and Superintendent Van Sickle. The average attendance has been between thirty and forty men who have discussed the various problems connected with the subject in its different bearings. Industrial education is a very live topic today. Many places are rushing into it without a clear understanding of what it means, or ought to mean, and in this way are making blunders which will prove costly, and tend to discredit a movement which is of real merit, and of the greatest importance to society. The sound knowledge and wide actual practice of both Mr. Kimball and Mr. Dean have been of immense advantage in giving to their students a wise view of the problems, and through these two the University has been able to do good service in guiding the new movement into correct and useful methods. As noted above Mr. Dean becomes now the official head of industrial education in the State Department of New York.

The largest part of the instruction given in the Summer Session has from the first been in the College of Arts and Sciences. This will, in all probability, continue to be the case. But it is clearer every year that this College cannot meet the whole demand for instruction in the summer. If the student in Arts has an opportunity to make up in the summer any work lost, to get ahead with work which he must do, or to obtain something outside the limits of what is required of him, why should not the Engineering student have the same chance? Many students from other institutions come here each summer to get some of Cornell's advantages in pure science.

Why should not the opportunities she offers in applied science be made available to students elsewhere who wish them? For a number of years instruction has been offered in the College of Civil Engineering in descriptive geometry and in mechanics, so that the principle, if there is any involved, may be considered settled. The chief obstacle to extending this kind of work has been the question of expense. Last year, in response to an urgent call for it, arrangements were made to give the course in machine design, (a regular course of the junior year in Sibley College), and to settle the money question by advance registration. The course was given with satisfaction to all concerned, and proved self-supporting. The same arrangement was repeated this year, and was also made for a course in reinforced concrete arch in the College of Civil Engineering. I am convinced that these two courses should be given again, and should be announced in the winter with the others. The work in the Engineering Colleges is heavy, and the curriculum is crowded. Students will always welcome this opportunity to do in a little more leisurely way, work which makes a large demand on their time because of the manual activity involved. In addition to this the interrelations of knowledge are now so many and the connections between different branches are so close that students and teachers in widely separated fields have common needs. The practice work of the Engineering Colleges is sought by numbers of teachers of science, and our own peculiarly fine equipment in this field enables us to be of special service to them.

One of the most attractive features of summer study at Cornell is the out-of-door work in field, forest and lake. The excursions in connection with botany and geography are unique. They attract many others than those registered in the subjects. The labor and responsibility called for on the part of the instructors in those departments is large, and it is due in no small measure to their watchful care that no accident of any kind has marred the success and pleasure of these excursions this summer.

PLANS FOR THE FUTURE

Our work covers at the present nearly the entire range of subjects taught in the high school curriculum. There are, however, two notable exceptions, music and physical training. I trust we may see our way to provide for them before long. There are several obstacles to this at present, but they seem to me not insuperable.

There is another question, of vital importance to the welfare of the Session, which presses for immediate solution. It is the relation of summer work to advanced degrees. Now this whole matter is in a most unsettled and unsatisfactory condition. An applicant cannot be informed definitely whether or not he may be a candidate for an advanced degree. He hesitates, naturally enough, to come here on uncertainties, and we are in this way losing the opportunity to attract good students, who might be secured if there were some positive action on the part of the Faculty. I do not urge that every such student be received, but it often happens now that if they do come they are able to do work toward a degree. It is the lack of positive rules in the matter which is embarrassing. In most cases it is the master's degree which is in question. The A. M. is tending to become a pedagogic degree. Its possession in several cities brings an increase of salary, and one state at least is making one year of graduate work at a university a condition for license to teach in her high schools. I find the attitude at other universities very favorable to summer study for the master's degree. Some have gone farther in this direction than I should favor. Their action, however, is a proof that they have found the quality of the summer work high. One of the prime objects of our Session was the elevation of high school teaching. This calls for two kinds of instruction, in the actual subjects of the high school curriculum, and in the higher work of the teacher's own department of study. Every teacher in a high school is expected to be a college graduate. If he pursues his own studies farther it is natural for him to seek an advanced degree as evidence of serious study, and the only time possible for the majority of teachers is the summer. For the first named kind of work we are making excellent and efficient provision. I think we should provide as much more of the second as we can, and that we should treat candidates liberally in our legislation in the matter. In this arrangement the proposed School of Education would be a great help, and I trust its organization may not be too long delayed.

GENERAL MATTERS

In addition to the regular class work of the Session, there have been numerous lectures of general interest. Following up the plan of the last two years the Monday lectures have been of a scientific character. The first was given by the President of the University, who spoke on "Science and Education." The other lectures were given by Professors Titchener, Nichols, Browne, Kimball and Dr. J. F. Jameson of the Carnegie Institution, Washington. The attendance was excellent. On Thursday evenings lectures were given on various subjects by Messrs. Furlong, Fuertes, Condra, Van Sickle and Mann. Mr. Chenhall gave six organ recitals in two of which he had the kind and pleasing assistance of Mrs. Chamot and Professor Pope.

The Sunday evening service of song on the campus west of McGraw Hall was continued to the satisfaction and pleasure of large numbers each week. There appeared some call for regular preaching services on Sunday. It may be worth while to repeat the plan of a morning service in Sage Chapel which we followed two years ago.

The loss of Sage College this year has been felt in several ways. In addition to the advantages of furnishing a residence near the lecture halls and in the midst of the campus, it has been the center of social life. In a small way two or three of the lodging houses have tried to make up for this, and quite successfully. Through the kindness of Director Smith, and the most efficient assistance of Professors Kimball and Darling, room was given in the Sibley College for the Saturday evening dances, and one of the pleasantest features of the Sage College life was thus preserved and made even more enjoyable than before.

Respectfully submitted,

George P. Bristol,

Director of the Summer Session.

APPENDIX XIII

REPORT OF THE WARDEN OF SAGE COLLEGE

To the President of the University:

SIR:—I have the honor to submit my report as Warden of Sage College for the year 1907–1908.

The number of students resident in Sage College during both the first and second half years was 169; the number in Sage Cottage during the first half year was 39, during the second half year 36. The total number in the dormitories, therefore, was 208 for the first half year, 205 for the second half year. Three lodging houses accommodating from fifteen to thirty students each, were reserved for women in the fall and kept full during the year. Of these three, one was the Alumnæ House, the plan of which was described in last year's report and which has already demonstrated its power for usefulness and given promise of a long and successful existence. A second house was composed of women of one fraternity, the third of women from various classes who either applied too late for rooms in Sage, or who preferred the greater quiet of life in a smaller establishment. About ten seniors or older students roomed in Cascadilla building. The remainder lived either at home or with friends or in places that were approved by the Warden. The scheme initiated this year of requiring all women registering in the University to register also at the Warden's office, proved of invaluable service in bringing the Warden at once into touch with all for whose housing she was responsible.

Various small improvements were made in the dormitories during the year including the installation of the system of automatic fire alarms and thermostats which were ordered last winter. Since September also a night watchman has patrolled the corridors of the College and Cottage, so that the protection against fire would now seem to be complete. The increase of twenty-five cents weekly in the price of board has made possible some widening in the range of the bill of fare and a small but needed addition to the staff of waiters which has facilitated service in the dining room. In general the table seems to have been wholesome and reasonably satisfactory in spite of the constantly rising cost of food material. Certain sweeping alterations which are to be made in the College building during the coming summer will improve still more conditions in the dining department, notably, the enlarging and rearranging of parts of the kitchen and of the freshmen dining room. The laying of new hard wood floors throughout the College, the remodelling of a portion of the reception rooms, the addition of a large new hot water boiler to the south wing and the general repainting and repapering and freshening of old furniture there and in the Cottage, which are also to take place in the summer, will much increase the comfort and attractiveness of these dwelling places of the women of the University.

The general health has, in the main, been good, especially during the spring term when sickness of any kind was unusually rare. In October one of the young men who acted as student waiters contracted scarlet fever from some outside source and imparted the infection to other members of the household before the nature of his own malady was discovered. Four young women, two residents of Sage College and two of the Cottage, came down in turn with the fever and were taken to the isolated ward of the City Hospital. Prompt and efficient action on the part of the University Committee on Health prevented the spread of the disease. A trained nurse was brought from the Infirmary and a doctor called morning and evening to keep strict watch over every case of illness, however slight and apparently innocuous and every spot where contagion could have lodged was carefully cleansed and fumigated. A few students took alarm and went home for a week or two or to other houses in town, but on the whole their attitude was cool and sensible and there was no panic. All anxiety for fear of further outbreak had practically ended by Thanksgiving. The cases of fever were uniformly light and the last of the convalescents was released from detention during the Christmas holidays.

Work in the department of physical training and athletics has proceeded steadily as before. Dr. Barringer has paid her customary visit to examine and advise with the women upon their health. To the universal regret she finds it incompatible with the growing demands of her practice in New York to continue her connection with the University another year. The women have profited by her willingness to sacrifice her own interests to theirs for so long, they themselves are appreciating now what her colleagues have felt from the first, the value of her insistence upon a more thorough and systematic oversight of the physical condition of the student body and a stricter enforcement of precautions against excessive exertion, and also of her efforts to arouse in the community a more intelligent concern for the maintenance of their own health. The new athletic field is slowly taking shape and has already been used for outdoor basketball. The problem of paying for the further grading and improving that are necessary has been simplified by the generosity of Mrs. Andrew D. White, who has offered to double any sum which the students themselves may raise up to five hundred dollars. Next year, it is hoped, will put the field into good enough condition for tennis. The rowing club has its new boat finished and partly paid for and this spring saw the organization of ten class crews. Basketball and tennis have been carried on as usual.

The student government association has passed through a momentous year, particularly in its relations with the women in houses outside the campus. A branch of the association was started in the fall in each of the three larger lodging houses, the rules for conduct which are in force at Sage were adopted by vote of the residents of the houses and a house president was chosen who superintended the administration of the rules and of house affairs in general and represented her house in meetings with the warden or with the general executive committee at Sage College. It has been recognized, however, throughout the year that the constitution with its various distinctions between women within and those without the dormitories was no longer adapted to present conditions when all are officially on the same basis, subject to the same jurisdiction. Accordingly a student committee has recently drawn up a new frame of government which will undoubtedly be adopted with some few alterations by the whole Association next October. The striking features of this instrument are a new membership clause which makes all women registered as students in the University *ipso facto* members of the organization and provides for local committees meeting weekly to settle minor questions in each house, Sage College and outside houses alike, and a general committee composed of the representatives from each house committee, meeting once a month in different houses by turn to handle more serious matters. The old distinctions between residents of Sage and of outside lodging houses are practically obliterated and the same general regulations are binding upon all. The adoption of this constitution will be one of the most important steps yet taken in the development both of the influence of the student government association and of the idea of unity and homogeneity among the women in the University.

The Warden's own absence through illness from January to June made it impossible for her during that period to take part in any College undertakings and also brought about the abandonment for the year of the usual official receptions. Through the fall term she was at home to students on Thursday evenings and held a small reading circle for an hour on Saturday evenings. In October, she invited the freshman class to meet Miss Putnam. The Assistant Warden gave two teas to the women at the Cottage and during November invited Dr. Hiram Corson to read aloud in the Cottage parlor on Saturday afternoons. The customary student festivities, class "stunts," fraternity and society teas and dances and the other functions which vary the academic year took place as they have done before.

Respectfully submitted,
LOUISE ROPES LOOMIS,
Warden of Sage College.

APPENDIX XIV

REPORT OF THE REGISTRAR

To the President of the University:

SIR:—I have the honor to submit herewith my twelfth annual report as Registrar of the University. The report covers the academic year 1907–1908, including the Summer Session of 1908.

THE YEAR

	Days in Session	Sundays	Holidays	Vacation	Total
First term, Sept. 24–Jan. 29	96	16	3	..	115
First term, vacation, Jan. 30, 31	..	..	..	2	2
Christmas vacation, Dec. 21–Jan. 2	..	..	..	13	13
Second term, Feb. 1–June 18	109	18	2	..	129
Easter vacation, Mar. 28–April 6	..	..	..	10	10
Summer vacation, June 18–July 5	..	..	..	17	17
Summer Session, July 6–Aug. 14	35	5	..	..	40
Summer vacation, Aug. 15–Sept. 28	..	..	..	45	45

In addition to the 240 days in session given above, the University Library was open every day in the year except holidays and there was no time during the year when college activities entirely ceased. The shops and some of the laboratories were also open during nearly all the vacation period.

STUDENTS

The table given on page XCI, which shows the attendance for 1907–1908, gives the number of students who have received instruction this year, including those in the 1908 Summer Session and in the winter courses in agriculture, but excluding duplicates, as 4,465, an increase over last year's attendance of 240.

The accompanying table shows the attendance in each course since the opening of the University in 1868. Previous to 1897 optional and special students were separately tabulated but now these are distributed as far as possible among the groups to which they belong.

The attendance for the year is the largest in the history of the University and the increase in the number of regular students this year is 211. Special attention is called to the fact that the above table includes winter and summer course students only as separately tabulated.

MATRICULATES

The following table shows that 1,737 students have registered during the present year for the first time. The table also shows the method of admission.

Graduates	62	New York City Exam's	9
Advanced standing	225	Coll. Ent. Board Ex.	33
Regents' credentials	244	Medical (Ithaca)	22
School certificates	465	Medical (N. Y. City)	75
By examination	41	Veterinary students	30
As special students	146	Summer Session (1908)	385
		Total	1,737

The small number entering by some of the above methods is due to the fact that two or more methods have been combined in a single case, the student, however, being listed in the group to which the major portion of his entrance belongs.

NG OF THE UNIVERSITY IN 1868.

	94–95	95–96	96–97	97–98	98–99	99–00	00–01	01–02	02–03	03–04	04–05	05–06	06–07	07–08
Graduate Departme	185	145	161	166	190	174	205	189	201	197	211	232	239	249
*Optional	66	77	75	....	....	....	....	....	....	....	....	....	....	....
Arts and Sciences . .	...	....	....	624	631	680	755	831	795	734	684	705	748	820
Arts	152	166	200	....	....	....	....	....	....	....	....	....	....	....
Letters	65	50	27	....	....	....	....	....	....	....	....	....	....	....
Literature	...	....	....	....	....	....	....	....	....	....	....	....	....	....
Philosophy	137	155	157	....	....	....	....	....	....	....	....	....	....	....
History and Politic	...	....	....	....	....	....	....	....	....	....	....	....	....	....
Mathematics	...	....	....	....	....	....	....	....	....	....	....	....	....	....
Science and Letters	...	....	....	....	....	....	....	....	....	....	....	....	....	....
Science	131	151	171	....	....	....	....	....	....	....	....	....	....	....
Natural History . . .	...	....	....	....	....	....	....	....	....	....	....	....	....	....
Chemistry	...	....	....	....	....	....	....	....	....	....	....	....	....	....
Medical Preparator	8	7	8	....	....	....	....	....	....	....	....	....	....	....
Agriculture	45	51	68	84	85	88	99	92	114	142	189	230	278	348
Mechanical Enginee	221	209	245	467	501	571	661	792	891	964	1060	1096	1081	1127
Mechanic Arts	...	....	....	....	....	....	....	....	....	....	....	....	....	....
Electrical Engineer	289	295	243	....	....	....	....	....	....	....	....	....	....	....
Industrial Art	...	....	....	....	....	....	....	....	....	....	....	....	....	....
Civil Engineering .	123	122	152	179	185	203	183	214	252	326	385	425	466	511
Architecture	76	67	51	53	48	43	52	50	53	65	68	81	82	100
Law	191	207	239	246	164	178	182	198	224	240	228	222	211	206
Veterinary	...	....	11	16	23	30	42	51	64	86	110	88	86	82
Forestry	...	....	....	....	7	20	23	44	70	....	....	....	....	....
Medical	...	....	....	....	278	333	347	433	396	371	406	394	348	320
Pharmacy	...	....	....	....	....	....	....	....	....	....	....	....	....	....
Total excludin	689	1702	1808	1835	2101	2299	2521	2845	3022	3091	3318	3461	3523	3734
†Summer Session . .	272	237	192	203	424	445	424	548	470	718	619	642	755	841
Summer Entomolog	11	18	18	20	29	26	30	35	33	26	....	....	....	....
Summer Sch. in Me	...	....	....	....	....	19	18	9	....	....	....	....	....	....
Summer Paleontolo	...	....	....	....	....	15	29	12	....	....	....	....	....	....
Winter Agriculture	77	83	60	93	89	83	94	96	121	134	199	248	244	270
Winter Veterinary	...	....	....	....	....	....	11	8	3	1	....	....	....	....

*In. The classification of "Optionals" was always vague, and

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†Al 1892.

Dept. & Coll.	Graduates			Arts & Sciences			Law			Medicine			Agriculture			Veterinary		
Degrees	A.M., Ph.D., M.M.E.			A.B.			LL.B.			M.D.			B.S. in Agr.			D.V.M.		
Classification	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T
Graduates	206	43	249	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Freshmen	..	..	..	207	81	288	..	..	..	94	10	104	93	3	96	..	..	..
Sophomores	..	..	..	109	66	175	..	..	..	70	7	77	42	4	46	..		..
Juniors	..	..	..	88	72	160	..	..	..	57	6	63	28	1	29	..	..	..
Seniors	..	..	..	96	82	178	..	..	..	61	1	62	31	4	35	..	..	..
1st Year Class	..	..	..	..	..	..	94	..	94		..	..	..	..	..	33	1	34
2nd Year Class	..	..	..	..	..	..	59	..	59	..	..	..	..	..	..	25	..	25
3rd Year Class	..	..	..	..	..	..	47	1	48	..	..	..	..	..	..	19	..	19
Specials		..	..	7	12	19	5	..	5	13	1	14	132	10	142	4	..	4
Totals	206	43	249	507	313	820	205	1	206	295	25	320	326	22	348	81	1	82
Duplicates	17	5	22	..	..	..	..	..	..	6	1	7	..	..	..	..	..	..
Net Totals	189	38	227	507	313	820	205	1	206	289	24	313	326	22	348	81	1	82
Short Winter Agr.	..	..	..	..	..	..	..	..	..	..	..	..	258	12	270	..	..	..
Summer	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	189	38	227	507	313	820	205	1	206	289	24	313	584	34	618	81	1	82
Duplicates	..	..	..	..	..	..	..	..	..	..	..	..	8	..	8	..	..	..
Net Totals	189	38	227	507	313	820	205	1	206	289	24	313	576	34	610	81	1	82

Dept. & Coll.	Architecture			Civil Eng.			Mech. Eng.			Summer Session			Total		
Degrees	B. Arch.			C. E.			M. E.								
Classification	M	W	T	M	W	T	M	W	T	M	W	T	Men	Women	Total
Graduates	..	..	..	..	..	..	..	..	..	..	..	..	206	43	249
Freshmen	40	2	42	194	..	194	422	..	422	..	..	..	1050	96	1146
Sophomores	20	1	21	123	..	123	237	..	237	..	..	..	601	78	679
Juniors	13	..	13	114	..	114	204	..	204	..	..	..	504	79	583
Seniors	8	..	8	73	..	73	241	..	241	..	..	..	510	87	597
1st Year Class	..	..	..	..	..	..	..	..	..	..	..	..	127	1	128
2nd Year Class	..	..	..	..	..	..	..	..	..	..	..	..	84	..	84
3rd Year Class	..	..	..	..	..	..	..	..	..	..	..	..	66	1	67
Specials	15	1	16	7	..	7	23	..	23	..	..	..	206	24	230
Totals	96	4	100	511	..	511	1127	..	1127	..	..	..	3354	409	3763
Duplicates	..	..	..	..	..	..	..	..	..	..	..	..	23	6	29
Net Totals	96	4	100	511	..	511	1127	..	1127	..	..	..	3331	403	3734
Short Winter Agr.	..	..	..	..	..	..	..	..	..	..	..	..	258	12	270
Summer	..	..	..	..	..	..	..	..	..	598	243	841	596	243	839
Totals	96	4	100	511	..	511	1127	..	1127	598	243	841	4185	658	4843
Duplicates	..	..	..	..	..	..	..	..	..	336	36	372	342	36	378
Net Totals	96	4	100	511	..	511	1127	..	1127	262	207	469	3843	622	4465

ADMISSION FROM OTHER COLLEGES AND UNIVERSITIES

The Registrar has charge of all credentials presented by applicants coming from other institutions and this system has given uniformity of action on similar certificates when the applicants enter different courses at this University.

In the following lists should properly be included a number of cases of special students who, coming from other colleges, would have been eligible for admission to advanced standing. Such students, however, preferred to be admitted as specials. Some later changed to a regular course but are not included in these tables.

The number of students admitted to advanced standing as candidates for the first degree during the past twenty-two years is, as nearly as may be ascertained, as follows. The former courses in Chemistry, Pharmacy, Medical Preparatory and Optional have been omitted from the table but the numbers retained in the totals.

Year	Arts	Phil.	Lett.	Sci.	Agri.	Arch.	Civil Eng.	Mech. Eng.	Forestry	Law*	Vet.	Med.	No. of Cases
1886–87	2	8	1	4	1	4	6	18	..	..	..	..	50
1887–88	6	4	1	1	..	..	11	10	..	..	..	..	37
1888–89	5	..	6	6	1	2	12	21	..	..	..	..	58
1889–90	4	5	6	3	2	1	2	25	..	..	..	..	50
1890–91	8	8	2	4	1	..	14	28	..	..	..	..	65
1891–92	7	9	2	5	2	2	10	52	..	..	..	..	89
1892–93	6	6	1	8	..	6	11	44	..	..	..	..	87
1893–94	5	6	5	8	..	6	6	56	..	..	..	..	94
1894–95	4	2	3	3	2	3	6	44	..	..	..	..	71
1895–96	5	11	4	7	3	3	9	33	..	..	..	..	85
1896–97	10	4	2	4	3	3	11	42	..	12	5	..	100
1897–98	11	6	..	7	9	2	15	41	..	15	1	..	108
1898–99	27	6	1	7	5	3	16	56	2	6	3	2	134
1899–00	28	..	..	1	5	3	25	64	1	7	4	..	138
1900–01	37	..	..	..	4	6	6	64	3	10	2	2	134
1901–02	38	..	..	..	9	2	29	92	5	7	..	2	184
1902–03	33	..	..	..	8	2	24	105	9	12	1	..	194
1903–04	31	..	..	..	9	5	39	112	..	9	1	1	207
1904–05	29	..	..	..	9	5	44	101	..	3	..	..	191
1905–06	39	..	..	..	14	8	36	89	..	1	..	..	187
1906–07	40	..	..	..	19	5	55	86	..	15	..	..	220
1907–08	43	..	..	..	22	10	60	79	..	11	..	..	225

Of the 225 admitted in 1907–1908, 100 registered as freshmen, 69 as sophomores, 36 as juniors, and 20 as seniors.

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*No data prior to 1896–1897.

The distribution of students admitted to advanced standing among the 435 institutions from which such applicants have come during the last twenty-two years is indicated in the following table. This table does not include students entering the Medical College who may have been in other colleges and universities. Students entering the College of Law prior to 1896–1897 are also not included.

Acadia	3
Adelaide, Univ. of	1
Adelbert	11
Adelphi College	6
Alabama	3
Alabama Poly. Inst.	5
Albany State Nor. Coll.	2
Albion Coll.	1
Alfred	9
Alleghany	24
Alma	2
Altoona (Germany)	1
Amherst	11
Anatolia Coll.	1
Arceuil (France)	1
Arequipa Univ. (Peru)	1
Arkansas Univ.	12
Armour Inst.	25
Arizona	1
Astrachansky (Russia)	1
Augustana Coll.	1
Austin	3
Baker Univ.	2
Baldwin Univ.	2
Baltimore City	29
Baltimore Poly. Inst	46
Baltimore Woman's Coll.	6
Barnard	1
Bates	2
Baylor	3
Beaver	1
Beloit	3
Berlin Koenigl. Tech. Hochsch.	3
Berne (Switz.) City Gym.	1
Bethany Coll.	1
Biddle Univ.	3
Boston Medical School	1
Boston Univ.	1
Bowdoin	2
Bradley Poly. Inst.	9
Brigham Young	2
Brooklyn Poly. Inst.	27
Brown	17
Bryn Mawr	5
Buchtel	6
Bucknell	16
Buena Vista Coll.	1
Buenos Aires Nat. Univ. (Arg. Rep.)	7
Buffalo Univ.	3
Calcutta C. E. Coll.	2
California	23
Cambridge Univ.	1
Canisius	1
Cape of Good Hope, Univ. of	1
Carleton	3
Case	29
Centenary	3
Central	2
Centre	2
Charleston	2
Chateau de Lancy (Switz.)	1
Chicago	28
Chinese Univ.	1
Chinzei Gakkwan	1
Christian Brothers	2
Christiania, Univ. of (Norway)	1
Christiania Voss Latin and Tech. Sch	1
Cincinnati	25
Clemson	7
Claflin Univ.	1
Clare Coll. (England)	1
Coe	3
Colby	4
Colegio de los Sagrados Corazones (Peru)	1
Colgate	11
Colorado Coll.	11
Colorado School of Mines	4
Colorado State Agr.	4
Colorado Univ.	8
Columbia	35
Columbian, now George Washington Univ.	25

Concordia Coll.	1
Conn. Agr. Coll.	9
Converse Coll.	1
Cooper Union	7
Cordoba Nat.Coll.(Arg.Rep.)	2
Cornell College	2
Curso Annexo (Brazil)	1
Dakota	1
Dalhousie (Canada)	7
Dartmouth	9
Davidson Coll.	2
De la Salle Inst.	1
Delaware Coll.	1
Delft School (Holland)	1
Denison	4
Denver	5
DePauw	8
Deseret	1
De Veaux	2
Dickinson	12
Dickinson Sem.	1
Doshisha (Japan)	2
Duquesne	1
Earlham	3
Elmira	5
Emory	1
Fairmount Coll	1
Farmville, (Va.) State Nor.	1
Florida Agr. Coll.	4
Fok Fan Coll.	3
Foo Chow Coll.	1
Forest Park Univ.	1
Franklin and Marshall	2
Freiburg	1
Furman Univ.	4
Gettysburg	2
Geneva Coll. (Pa.)	3
Grove City	6
Georgetown (D. C.)	12
Georgetown (Ky.)	2
Georgia	8
Georgia Technology	14
German Wallace School	1
Glasgow Univ.	1
Gonyaga Coll.	1
Granville Female	1
Guilford Coll.	1
Habana Inst. (Cuba)	3
Hamburg Realschule	1
Hamilton	12
Hamline Univ.	1
Hampden Sidney	9
Hampton	1
Harvard	26
Harvard Annex	2
Havana Univ. (Cuba)	6
Haverford	4
Heidelberg Univ.	5
Hillsdale	4
Hiram	5
Hobart	20
Hollins Inst.	1
Holy Cross	4
Howard Univ.	3
Idaho	4
Illinois	32
Illinois Coll.	1
Illinois State Normal	1
Illinois Wesleyan	2
Imperial Poly. Coll. (China)	2
Indiana	18
Iowa Agr.	13
Iowa Coll	6
Iowa State Coll	2
Iowa State Univ	13
Jena (Germany)	2
Johns Hopkins	20
Kansas State	9
Kenyon	9
Kentucky State	10
Kentucky Univ.	1
Kentucky Wesleyan	1
Keuka Coll.	2
Knox	10
Lafayette	14
Lake Forest	8
La Salle Coll.	1
Lausanne Gym. Sci.	1
Lawrence Univ.	4
Liceo of Costa Rica	3
Liceo de Manila	2
Lebanon Valley	1
Leesville	1
Lehigh	41
Lewis Inst.	19
Liege (Belgium)	3
Lima (South America)	7
Lincoln Univ.	2
Liverpool Univ.	1
Larboune (France)	1
Louisiana State	7
Louisville, Univ. of	1

Macalester	1
McGill	6
MacKenzie Coll.	8
Maine State	12
Manila-Ateno (P. I.)	5
Manitoba	3
Marietta	2
Marion Mil. Inst	1
Marquette	1
Marshall Coll.	3
Maryland Agr.	10
Mary Baldwin Sem	2
Maryville Coll.	1
Massachusetts Agr.	14
Massachusetts Inst.of Tech.	37
Matanzas Inst. (Cuba)	2
Melbourne Univ.	1
Mexico Univ.	1
Miami	1
Michigan	54
Michigan Agr.	23
Michigan Mining School	3
Mich. State Nor. Coll	1
Middlebury Coll	1
Miller Manual Training	1
Millersburg Military Inst	1
Millsaps Coll.	1
Minnesota	20
Mississippi Agr.	8
Mississippi Coll.	2
Mississippi Univ.	5
Missouri School of Mines	1
Missouri State	18
Missouri Wesleyan Coll.	1
Monmouth	3
Montana Coll.	1
Montana Nor. Coll.	1
Montana School of Mines	1
Montana State Coll.	9
Montana, Univ. of	1
Morningside Coll. (Iowa)	1
Mt. Allison (Canada)	2
Mt. Holyoke	10
Mt. St. Mary's Coll.	1
Mt. Union	1
Muhlenberg Coll. (Pa.)	2
Nanking Univ.	1
Nanyang Coll. (China)	2
Nat. Agr. Coll. (Lima, Peru)	2
Nat. Coll. (Arg. Rep.)	3
Nat. Sch. of La Plata	1
Nebraska	10
Nelson Coll	1
Nevada State Univ	1
Newberry Coll.	1
New Brunswick	1
Newcomb Coll	2
New Hampshire	8
New Hampshire Agr.	1
New Mexico Agr. Coll.	1
New York City Normal	6
New York City Veterinary	3
New York, Coll. of the City of	85
New York Coll. of Pharmacy	1
New York, Univ. of	9
New York Woman's Med. Coll.	1
Niagara Univ	1
Noorthey Coll. (Holland)	1
North Carolina	8
North Carolina Agr.	6
No. Carolina State Nor. Coll.	1
North Dakota Univ.	3
Northwestern	18
Norwich Univ	2
Notre Dame	8
Norway, Univ. of	1
Nova Scotia Sch. of Agr.	2
Oberlin	28
Ohio	3
Ohio State	43
Ohio Normal	4
Ohio Northern Univ.	1
Ohio Wesleyan	10
Oklahoma Agr.	1
Oklahoma, Univ. of	1
Olivet	3
Ontario Agr. Coll	1
Ontario Veterinary	4
Oregon	5
Oregn Ag. Coll.	7
Ottawa (Kansas)	3
Otterbein Univ.	2
Owens College	1
Pacific Univ. (Oregon)	1
Pekin Coll.	1
Penn. Coll. (Iowa)	1
Penna. Coll.	1
Penn Military College	14
Pennsylvania State	33
Pennsylvania, Univ. of	30
Pennsylvania, West. Univ. of	25
Phila. Coll. of Pharmacy	1

Pomona	3
Portland Univ	1
Porto Rico Inst.	3
Potsdam Inst. ofTech	4
Pratt Inst. Coll. Dept	1
Princeton	34
Presbyterian Coll. of So. Car.	1
Purdue	35
Queen's Coll. (China)	2
Queen's Univ	2
Racine	1
Radcliffe	3
Randolph-Macon	4
Randolph-Macon (Woman's)	1
Realgymnasium (Bremen)	1
Rensselaer Poly. Inst	13
Reykjavik (Iceland)	1
Rhode Island Coll.	2
Richmond	7
Rio de Janiero Coll. Alfredo Gomes	1
Rio de Janiero Poly. Sch	1
Rio de Janiero Nat. Coll	1
Rio de Janiero Gymnasio Pio	1
Ripon	1
Robert College	4
Rochester	34
Rockford Coll.	1
Rock Hill Coll	1
Rollins Coll.	4
Rose Poly. Inst	12
Royal Mil. Coll.	2
Rutgers	10
St. Bonaventure's Coll	1
St. Dunstan's Coll.	1
St. Francis Xavier	1
St. Ignatius Coll	1
St. John's Coll. (Annapolis)	6
St. John's Coll. (China)	1
St. John's (Fordham)	6
St. John's Coll. (Toledo, O.)	1
St. Joseph's Coll. (Canada)	1
St. Louis (Costa Rica)	2
St. Louis Coll. (Texas)	1
St. Lawrence Univ	6
St. Mary's Coll	1
St. Michael's Coll	1
St. Petersburg Inst. of Tech. (Russia)	1
St. Petersburg Univ. (Russia)	1
St. Stanislaus Coll.	1
St. Stephen's Coll	3
San Juan Coll. (P. I.)	1
San Juan School of Mines (Cuba)	1
Santiago Nat. Coll	2
Saratoff (Russia) Tech. Coll.	1
Scio Coll.	2
Senmon Gakko (Tokio, Japan)	1
Shaw Univ	1
Simbirsk (Russia)	1
Simpson Coll	1
Smith	5
Soochow Univ	1
South Carolina	6
South Carolina Mil. Acad	3
Southwest, Presbyter'n Univ	2
Spring Hill Coll.	3
Stanford	32
Stetson Univ	1
Stevens Inst. of Tech	55
Susquehanna Univ	1
Swarthmore	25
Sydney Univ.	8
Syracuse	24
Tennessee	5
Texas	13
Texas Agr.	16
Thiel Coll.	2
Tientsin Univ. (China)	5
Tokio Univ	1
Tokio Inst. of Tech	8
Toronto Sch. of Prac. Science	2
Toronto Univ.	6
Trinity (Conn.)	4
Trinity (N. C.)	1
Truro Agr. (Canada)	3
Tufts	7
Tulane	28
Union	17
Union Coll. (Ky.)	1
Union (Tokio, Japan)	1
U. S. Military Academy	8
U. S. Naval Academy	6
U. S. Grant Univ	1
University College (Dublin)	1
Univ. of South California	1
University of Spain	1
University of Washington	11
University of the South	2
Upper Iowa	2

Ursinus	1
Utah	6
Utah Agr. Coll.	3
Vanderbilt	11
Vassar	8
Vermont Univ.	3
Victoria Univ.	2
Vincennes	2
Vincente Rocafuerte Coll. (Ecuador)	2
Virginia Agr. and Mech.	1
Virginia Mil. Inst.	28
Virginia Poly. Inst.	17
Virginia Univ.	8
Virginia Union Univ	1
Wabash	2
Wagner Coll.	1
Warsaw Poly. Inst. (Poland)	1
Washburn Coll.	2
Washington State Coll.	2
Washington and Jefferson	13
Washington and Lee Univ.	3
Washington Coll. (Md.)	4
Washington Univ.	20
Waynesburg	2
Webb Acad.	3
Wellesley	17
Wells	5
Wesleyan	16
Western Maryland	6
Western Normal	1
Western Reserve	3
Westminster Coll.	5
West Virginia Univ.	5
Wheaton	2
Whillar School (Peru)	2
Whitworth Coll.	1
Wilberforce Univ.	1
William and Mary	2
Willamette Univ.	2
Williamsburg Inst.	1
Wilmington	1
Williams	28
Wilson Coll. (Penna.)	3
Wilson Coll. (India)	3
Wisconsin	21
Wittenberg	5
Wooster	24
Worcester Poly. Inst.	29
Wyoming, Univ. of	1
Yale	45
Zurich Polytechnicum	3

ADMISSION ON SCHOOL CERTIFICATE, REGENTS' CREDENTIALS, AND EXAMINATIONS

The Registrar has charge of the credentials of those entering by Regents' credentials and by examinations, including the examinations conducted by the College Entrance Examination Board.

During the last sixteen years the number of applicants admitted by school certificate, by regents' credentials, and by examinations, has been as follows:

	'92-3	'93-4	'94-5	'95-6	'96-7	'97-8	'98-9	'99-00	'00-1	'01-2	'02-3	'03-4	'04-5	'05-6	'06-7	'07-8
Certificate	195	209	156	164	102	193	199	275	296	357	308	315	317	380	324	465
Regents' –	120	125	118	119	131	140	154	164	198	212	219	220	238	233	185	244
Exam. . . .	63	55	23	28	28	25	22	24	26	39	19	18	27	16	18	41
Coll. Ent. Exam. Bd.	..	..	..	..	..	..	..	..	..	9	11	20	27	29	37	33
N.Y.C. Ex.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20	9
Total	378	389	297	311	361	358	375	463	520	617	557	573	609	658	584	792

The Regents' credentials mentioned above do not include medical and veterinary student certificates.

The discrepancy in numbers in the freshman class, if compared with those given in the Register, is due to students being registered back and to students admitted from colleges and universities partly to advanced standing.

The small number credited to entrance by examination would be much larger if those taking a single examination to make up a shortage in another group were included. It is not unusual to have a student enter partially by certificate, by examination, and by College Board examination. The combining of school with Regents' credentials, however, is not a common method of admission and is employed only in very exceptional cases.

It should be noted that the number entering entirely by our examinations is small. The preparatory schools are now better acquainted with our entrance requirements. Certain Regents' credentials admit to the College of Law, and under certain conditions relieve all students from taking an entrance examination in English. Regents' pass cards for single subjects are accepted if the grade be at least 75. The failure of several students to pass the entrance examination before completing the high school course has influenced others to complete their course in school and enter the University by certificate.

PETITIONS

The usual form of petition has been continued by the several Faculties. When the petition relates to routine matters and a mere change of registration of studies, a much simpler method has been adopted for changes in registration, and the strict enforcement of registration rules has made a marked improvement on the students' work. The Faculties of Arts and Sciences, Agriculture, Civil Engineering, Medicine, and Veterinary Medicine have filed the petitions in the offices of these Colleges and have notified the Registrar of the action taken; while the Law and Mechanical Engineering Faculties have returned the petitions to this office and the office has notified the students by mail.

The registration of old students for the first term takes place after the matriculation of new students. This allows new students a day to arrange their work before instruction begins. Old students' are not required to be at the University until the day preceding the one on which instruction begins. The system of registering new students in September in groups according as their names appear in the alphabet and of sending out by mail permits for registration has solved the overcrowding of registration and gives each student abundant time to get started aright.

BY CORNELL UNIVERSITY

	6	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	Total
Bachelors of Ar	31	39	42	50	53	129	189	181	212	181	147	154	173	1945
Bachelors of Li	..	....	....	....	....	....	....	....	....	....	....	....	....	52
Bachelors of P	43	49	44	26	40	....	....	....	....	....	....	....	....	484
Bachelors of L	12	16	3	5	....	....	....	....	....	....	....	....	....	264
Bachelors of S	23	34	57	59	62	1	....	....	....	....	....	....	....	871
Bachelors of S	..	....	....	....	....	....	....	....	....	....	....	....	....	9
Bachelors of S	..	....	....	....	....	....	....	....	....	....	....	....	....	4
Bachelors of S	5	....	....	....	....	....	....	....	....	....	....	25	39	120
Bachelors of S	19	....	....	....	....	....	....	....	....	....	....	....	....	118
Bachelors of A	..	8	9	8	10	6	8	6	4	14	7	15	8	142
Bachelors of A	..	....	....	....	....	....	....	....	....	....	....	....	....	30
Bachelors of th	..	8	9	12	8	14	8	8	14	19	27	....	....	127
Bachelors of V	..	....	....	....	....	....	....	....	....	....	....	....	....	4
Doctors of Vet	..	3	4	6	7	9	10	13	16	25	27	32	18	170
Graduate in Ph	..	....	....	....	....	....	....	....	....	....	....	....	....	1
Pharmaceutica	..	....	....	....	....	....	....	....	....	....	....	....	....	2
Bachelors of C	..	....	....	....	....	....	....	....	....	....	....	....	....	161
Civil Engineer	23	24	15	30	35	48	31	38	37	57	52	90	69	785
Bachelors of M	..	....	....	....	....	....	....	....	....	....	....	....	....	57
Mechanical En	10	125	87	89	100	110	110	157	140	187	225	235	244	2452
Bachelors of L	61	81	105	25	52	44	32	45	49	52	61	46	40	1054
Doctors of Med	..	....	....	66	59	26	53	60	55	74	59	72	58	582
Forest Engine	..	....	....	....	1	5	2	2	5	....	1	1	..	17
Total Firs	27	387	375	376	427	392	443	510	532	609	606	670	649	9451
*Ph.B. in Hist.	3	2	....	2	....	....	....	....	....	....	....	....	....	....
†B.S. in Chem	..	....	....	....	....	....	....	....	....	....	....	....	....	....
in Chem.	..	....	....	....	....	....	....	....	....	....	....	....	....	....
in Natur	..	....	....	....	....	....	....	....	....	....	....	....	....	....
in Scien	..	....	....	....	....	....	....	....	....	....	....	....	....	....
in (Phys	..	....	....	....	....	....	....	....	....	....	....	....	....	....
in Mathe	..	....	....	....	....	....	....	....	....	....	....	....	....	....
in Civil	..	....	....	....	....	....	....	....	....	....	....	....	....	....
in Electr	..	....	....	....	....	....	....	....	....	....	....	....	....	....
‡M.E. in Electr	69	69	46	33	43	29	36	51	....	....	....	....	....	....
in Marin	..	....	....	....	....	....	....	19	....	....	....	....	....	....
in R'y M	..	....	....	....	....	....	....	10	....	....	....	....	....	....

	96	'97	'98	'99	'00	'01	'02	'03	04	'05	'06	'07	'08	Total
Architect ...	...	....	....	....	....	....	....	....	....	....	....	....	....	1
Civil Engineer	...	....	....	....	....	....	....	....	....	....	....	....	....	20
Mechanical En	...	....	....	....	....	....	....	....	....	....	....	....	....	1
Masters of Art	1	10	10	16	14	20	19	22	12	23	13	10	22	249
Masters of Phi	3	....	....	....	....	....	....	....	....	....	....	....	....	10
Masters of Let	...	....	....	....	....	....	....	....	....	....	....	....	....	9
Masters of Sci	8	....	1	....	....	....	....	....	....	....	....	....	....	84
Masters of Sci.	3	5	5	3	....	8	7	3	2	10	11	9	12	84
Masters of Sci.	1	1	....	....	....	....	....	1	1	1	1	1	3	13
Masters of Civ	...	1	3	2	1	3	....	3	....	3	1	1	2	39
Masters of Me	15	6	2	7	4	10	4	7	6	9	4	4	5	140
Masters of La	4	7	5	....	....	....	....	....	....	....	....	....	....	60
Doctor of Vet	...	....	....	....	....	....	....	....	....	....	....	....	....	1
Doctors of Sci	3	3	....	....	....	1	....	....	....	....	....	....	....	20
Doctors of Ph	14	11	23	7	19	20	23	20	13	21	19	19	22	291
Doctors of La	...	....	....	....	....	....	....	....	....	....	....	....	....	2
Total Ad	52	44	49	35	38	62	53	56	34	67	49	44	66	1024
Grand To	379	431	424	411	465	454	496	566	566	676	655	714	715	10475

The inserted table gives the number admitted to graduation at the 1908 Commencement as well as those of former years. 10,475 degrees have been conferred, but there are some duplicates between the first and second degrees. The discrepancy between this table and the one given in the 1896–1897 report is due to a careful investigation while compiling data for the third Ten Year Book. One degree (M.D.) was conferred in 1899, but in 1907 was revoked because the candidate declined to accept it. One degree (D. V. M.) was conferred in June, 1905, but owing to a technicality was withdrawn and conferred again June, 1906, while another degree (D. V. M.) was conferred in 1907 but dated as June, 1906. Several degrees had been conferred and not recorded. Care has been taken to discriminate between closely allied degrees, but such have been grouped so as to show at a glance the number in each department.

Respectfully submitted,
David F. Hoy,
Registrar.

APPENDIX XV

REPORT OF THE LIBRARIAN

To the President of the University:

SIR:—I have the honor to submit herewith my annual report on the University Library for the year ending June 30th, 1908.

The following table shows the additions made to the various collections composing the University Library and the total present extent of the Library:

	ADDITIONS 1907-08		PRESENT EXTENT	
	Volumes	Pamph.	Volumes	Pamph.
General Library	10,977	2,000	307,334	53,000
Law Library	1,550	....	38,735	....
Flower Veterinary Library	148	....	3,115	....
Barnes Reference Library	125	....	1,489	....
Forestry Library	15	....	1,107	....
Goldwin Smith Hall Library	1,081	....	1,081	....
Stimson Hall Medical Library	41	....	777	....
Totals	13,937	2,000	353,638	53,000

Of the accessions to the general library (numbering 10,977 volumes), 3,646 volumes were gifts. In the accessions to the general library are included 806 volumes added to the various seminary and laboratory collections. Of the additions to the Law library 464 volumes were gifts, as were also three volumes of the additions to the Flower library and 21 volumes of the additions to the Stimson Hall library and 315 volumes were gifts to the Goldwin Smith Hall library.

The establishment of the Goldwin Smith Hall library is perhaps the most noteworthy event of the year. This is, in a way, for the students in the literary and historical courses a counterpart of the collections of apparatus and tools in the laboratories and workshops. It consists chiefly of additional copies of books, already in the general library, used in undergraduate work in the humanities, providing in some cases many copies of the books most in demand in the larger classes. The collection now numbers about eleven hundred volumes and is distinctly a reference collection. The books have been arranged on open shelves in a commodious reading room and have been classified according to the departments of instruction represented.

Among the more important gifts of the year the largest consists of 368 volumes of legal works bequeathed to the Law library by the late F. M. Finch. The general library received from ex-President White, 279 volumes; from Theodore Stanton, of the class of '76, 168 volumes; from C. W. Wason, of the class of '76, a complete set of the valuable publications of the Rowfant Club, complete sets of which are rare; from Samuel Fraser, a complete set of the Ayrshire Herdbook in 30 volumes. To yourself and to Professors Burr, Carpenter, Hart, Hewett, Tarr and Willcox, the Library is also indebted for many valuable additions. From the Hispanic Society of America we received three of the Society's costly facsimile reprints of rare Spanish works, and from Mr. C. H. St. John Hornby, a copy of his privately printed edition of Dante's Purgatorio. From the National Government and from various state and municipal governments the usual supply of federal, state and municipal documents has been received. From the English, Canadian and Australian Patent Offices we continue to receive their valuable publications. For the gifts here mentioned, and for the numerous minor gifts received during the year, prompt acknowledgement of our thanks has been made to the respective donors.

Among the more important and costly works purchased during the year may be noted a fifteenth century manuscript of Cicero's Tusculanæ Disputationes, a fifteenth century manuscript of St. Bernard's Miracula in itinere germanico patrata; facsimiles of the Codex Vindobonensis of Livy, of the Orsini codex of Petrarch's Rime, and of a modern illuminated manuscript of Petrarch's Trionfi; a set of the Tudor facsimile texts; Fry's Description of the Great Bible; Proctor's Index to Early Printed Books; Recopilacion de leyes de los reynos de las Indias, 1681; Imhoof-Blumer's Kleinasiatische Münzen; De Morgan's Mémoires de la Délégation en Perse; Cassin's Mammalogy of the U. S. Exploring Expedition; Dumeril et Bocourt's Études sur les Reptiles; Dumeril et Bibron's Erpétologie générale; Boulenger's Fishes of the Nile; Gratiolet's Mémoire sur les plis cérébraux de l'homme; Rothschild's Extinct Birds; Saccardo's Sylloge

Fungorum; Semmler's Aetherische Öle; Sanmicheli, Fabbriche Civili; Watts' Dictionary of Chemistry. Complete sets of Analecta Hymnica Medii Aevi, Boletin de la Real Academia de la Historia, (Madrid), Comptes rendus des séances de la Société de Biologie, Dekorative Vorbilder, Igl Ischi, Publicationen aus den K. preussischen Staatsarchiven, Proceedings of the Society of Antiquaries of Scotland, Scottish Notes and Queries, and Vierteljahrschrift der astronomischen Gesellschaft. The following important sets have been completed: Bulletin de l'Académie Royale de Belgique, Kgl. Svenska Vetenskaps Academiens Forhandlinger, Hedwigia, Journal of the Royal Asiatic Society, Répertoire du Théatre français, Stenographische Berichte des Reichstags, Forschungen zur Brandenburgischen und Preussischen Geschichte, State Records of North Carolina, and Pflüger's Archiv für die gesammte Physiologie des Menschen und der Thiere.

Dr. A. C. White, assistant librarian in charge of the classification, reports that, in addition to the regular work of classifying the accessions to the general library, he has classified the Goldwin Smith Hall library of reference books for the College of Arts and Sciences and has made a duplicate shelf-list of these books on cards. He has also classified most of the books accumulated in past years by the College of Agriculture and the Experiment Station. These books together with the current accessions to the library of the New York State College of Agriculture have been incorporated in the shelf-lists of the University Library with the appended distinguishing mark *Agr.* He has also mounted our Græco-Egyptian papyri between panes of glass and has assigned a regular call number to each item of the collection. He also reports that, while the details of the new classification of American literature are not entirely satisfactory, he believes that it is a distinct advance and hopes to apply a smilar method to English literature beginning with the Shakespeare collection.

From the catalogue department, Miss Dame, the assistant librarian in charge, reports that during the year the number of volumes and pamphlets catalogued for the general catalogue was 13,385. For these 15,816 cards were written and 1,189 printed cards were obtained from the Library of Congress. The McKim collection of letters relating to slavery and the freedmen has been re-arranged and indexed. The work of filing the set of catalogue cards and slips received from the Library of Congress has been brought down to date, forming a complete copy of the printed card catalogue.

From the President White Library, Professor Burr reports a continuance of prosperity. The income of President White's "Warfare of Science" has remained a considerable resource, and has again been supplemented by many gifts received directly from Mr. White. Besides its purchases of current literature and the completion of several valuable series the library has added notably to the wealth of its other collections. From the sale of the library of the eminent German historian Knaake came rare treasures for that on the Lutheran Reformation. From those of the Duc d' Altemps, the Baroness von Güldenstubbs, and one or two less known collectors came precious things for our shelves of superstition and of persecution and tolerance. But the most numerous and notable accessions have been the finds of Professor Catterall for the collection on the French Revolution. And in all these fields we have added manuscripts as well as printed books.

Mr. Hermannsson, in charge of the Icelandic collection, reports that the classification and the preparation of the shelf-list of the collection have been completed and that the work on the catalogue continues. Besides provision for the maintenance and increase of the Icelandic collection, Mr. Fiske's will contained the following bequest:

> "I give and bequeath to the said Cornell University . . . the sum of Five Thousand ($5,000) Dollars, to have and to hold the same forever, in trust, nevertheless, to receive the income thereof, and to use and expend the said income for the purposes of the publication of an annual volume relating to Iceland and the said Icelandic collection in the library of the said University."

In pursuance of this provision there was issued this year the first volume of a series entitled "Islandica; an annual relating to Iceland and the Fiske Icelandic collection in Cornell University Library," containing a Bibliography of the Icelandic Sagas prepared by Mr. Hermannsson. The revision and the printing of this bibliography have occupied a large share of Mr. Hermannsson's time during the year.

Miss Fowler, who has charge of the Petrarch and Dante collections, reports that the classification, and the shelf-list of the Petrarch collection have been completed, and the shelf numbers added to the cards of the author catalogue, which has also been completed to date. A beginning has been made in the analysis of general periodicals for Petrarch material.

Mr. W. H. Austen, assistant librarian in charge of the reference and loan departments of the general library, reports that the Library has been open 309 days during the year, being closed on Sundays, Thanksgiving day, Christmas day, New Year's day, Fourth of July and Labor day. In addition to the number of University officers having access to the stacks, permission to use the stacks has been granted to 52 other readers, for special work. The number of registered users of the Library, as here given, includes only those who have drawn books for home use from the general library:

University officers	232
Students	565
Special borrowers	39

The number of reserved books in the reading rooms and seminary rooms in the Library building is 12,865, the number reserved at the delivery desk for special use is 1,658 and the number in locked presses 1,335. The number of volumes from the general library deposited in various laboratory and department collections in other University buildings is now 16,782. The number of volumes reported missing from these collections during the year 1907–1908 is as follows:

From the reading room shelves	30
From Seminary rooms	1
From department and laboratories	69

From the figures reported by Mr. Austen and by Miss Van Natten the following table has been compiled, covering the past two years. The use made of the Library, however, is shown only in part by this table, as no record is kept of the use made of the books on the open shelves in the building.

REFERENCE AND DEPARTMENT USE

	1906–07	1907–08
Volumes used in reading rooms	84,154	73,072
Volumes sent to Seminary rooms	3,583	3,095
Volumes sent to departments	8,555	6,249
HOME USE		
Volumes from general library	19,780	20,388
Volumes from open shelf circulating library	3,991	6,627
Volumes loaned to other libraries	107	194
Total recorded use	120,170	109,625

It should be noted that in the statistics for the year 1906–1907 the figures for the open shelf circulating library are not for the full year, but only for the period from January 1st to June 30th, 1907. That the opportunity afforded by this collection of free access to the shelves for choosing books for general reading is appreciated by the students, seems evident from the fact that very nearly one fourth of all the books taken from the Library for home use were from this small collection of about 3,500 volumes. The number of students who have registered and drawn books from this collection is 806, and the number of readers who used books from this collection in the room without taking them for home use was 5,918.

Mr. W. W. Ellis, curator of the shelves, reports that, in addition to inspecting the new books before they leave the catalogue room for the correction of errors in call-numbers and book-plates, he has made the usual inventories. There are at present missing from their proper places in the stacks 311 volumes, as against 265 last year and 261 the year before; 215 volumes were found on the wrong shelves as compared with 300, 225 and 215 from the three preceding years. Three new cases of large drawers have been provided for the large collection of maps and plans of the University grounds and buildings. In these cases the plans can be much more readily consulted and kept in order. Detailed lists of the large accumulation of unbound duplicates and specimen numbers of periodicals have been prepared in the hope of being able to make use of them in exchanges with other libraries, or otherwise disposing of them.

By vote of the Library Council, at its November meeting, the privilege of drawing books from the general library for home use was extended to all regularly matriculated students of the University, subject to the general regulations of the Library.

In the first term of the year Mr. Austen gave his regular course of lectures on the use of books, which was followed by a course of instruction in practical work during the second term. In the second term the Librarian gave his regular course of lectures on general bibliography. The annual record of publications by the University and its officers has been prepared by Miss Dame and is submitted herewith. The list of donors which accompanies this report has been prepared by Miss Thornburg.

Respectfully submitted,

GEO. WM. HARRIS,

Librarian.

APPENDIX XVI

PUBLICATIONS, 1907–1908

Under the Auspices of the University

The University records. 7 s. no. 6–8 s. no. 4. *2m.* Ithaca, 1907–1908. 5 nos. 8°. *Illus.*

Contents:—vii. 6. The register, 1906–1907.

viii. 1. Fifteenth annual report of President Schurman, 1906–1907.

2. The register, 1907–1908.

3. Announcement of the seventeenth summer session, July 6 to Aug. 14, 1908.

4. The College of Arts and Sciences.

Abstracts of work done in the laboratory of veterinary physiology and pharmacology, under the direction of P. A. Fish. No. 5. Ithaca, 1908. 8°. pp. 48 + (1). *Portrs.* and *plates.*

The Cornell civil engineer and transactions of the Association of Civil Engineers of Cornell University. Vol. xv., no. 3–xvi., no. 9, May, 1907–June, 1908. *m.* Ithaca, 1907–1908. 11 nos. 8°. *Illus.*

The Cornell countryman. Vol. v., no. 1–9. Oct., 1907–June, 1908. *m.* Ithaca, 1907–1908. 9 nos. 8°. *Illus.*

Cornell studies in classical philology, edited by C. E. Bennett, J. R. S. Sterrett and G. P. Bristol. No. xviii. [New York], 1908. 8°. pp. iii. + 128.

xviii. Index to the fragments of the Greek elegiac and iambic poets as contained in the Hiller-Crusius edition of Bergk's Anthologia lyrica; by M. C. Lane.

Directory of resident officers of instruction and government and of students, Oct. 10, 1907. [Ithaca, 1907.] sm. 8°. pp. 39.

Same, Feb. 12, 1908. [Ithaca, 1908]. sm. 8°. pp. 38.

Fifth annual music festival, Cornell University, April 29 and 30, May 1 and 2, 1908. Ithaca, 1908. 8°. pp. 52 + (3). *Portrs.*

Islandica: an annual relating to Iceland and the Fiske Icelandic collection in Cornell University Library, edited by G. W. Harris. Vol. i. Ithaca, 1908. 8°. pp. (13) + 126.

i. Bibliography of the Icelandic sagas and minor tales; by H. Hermannsson.

The journal of physical chemistry; edited by W. D. Bancroft [and] J. E. Trevor. Vol. xi., no. 7–xii., no. 6, Oct., 1907–June, 1908. *m*. Ithaca, 1907–1908. 9 nos. 8°. *Illus.*

"Issued monthly except in July, August and September."

The philosophical review; edited by J. E. Creighton and E. Albee, with the co-operation of J. Seth. Vol. xvi., no. 4–xvii., no. 3, July, 1907–May, 1908. *2m*. New York, 1907–1908. 6 nos. 8°.

The physical review; a journal of experimental and theoretical physics, conducted by E. L. Nichols, E. Merritt and F. Bedell. Vol. xxv.–xxvi., July, 1907–June, 1908. *m*. New York, 1907–1908. 2v. 8°. *Illus.*

Publications of Cornell University Medical College: studies from the Department of Pathology. Vol. vii. New York, 1907. 8°. *Illus.*

Bulletin of the Agricultural Experiment Station. No. 246–254, May, 1907–May, 1908. Ithaca, 1907–1908. 9 nos. 8°. *Illus.*

Cornell reading-course for farmers. 8 s. no. 36–38, Nov., 1907–Jan., 1908. *m*. Ithaca, 1907–1908. 3 nos. 8°. *Illus.*

Cornell reading-course for farmers' wives; M. Van Rensselaer, supervisor. 6 s. no. 26–28, Nov., 1907–March, 1908. *2m*. Ithaca, 1907–1908. 3 nos. 8°. *Photo-engrs.*

Cornell rural school leaflet, A. G. McCloskey, editor. Vol. i.. no. 1–9, with supplements, Sept., 1907–May, 1908. Ithaca, 1907–1908. 9 nos. 8°. *Illus.*

Home nature-study course; by A. B. Comstock and J. W. Spencer. N. S. vol. iv., no. 1–4, Oct., 1907–May, 1908. *2m*. Ithaca, 1907–1908. 4 nos. 8°. *Illus.*

Twentieth annual report of the Agricultural Experiment Station, 1907. Ithaca, 1907. 8°. pp. xix. + (1) + 264. *Illus.*

U. S. Department of Agriculture, N. Y. Section of the Climatological Service of the Weather Bureau. Report. Vol. xix., no.6–

xx., no. 5, June, 1907–May, 1908. *m.* Ithaca, 1907–1908. 13 nos. 4°. *Maps.*

In co-operation with Cornell University.

——Weekly weather bulletin. Series of 1907, no. 13–23, series of 1908, no. 1–11, 2 July, 1907–30 June, 1908. [Ithaca], 1907–1908. 22 broadsides. *Maps.*

In co-operation with Cornell University.

By Officers

In the present list are included the titles of books, pamphlets and contributions to periodicals, transactions, etc., published by officers and fellows of the University during the period extending from July 1, 1907, to June 30, 1908, with some titles omitted in previous lists.

Adams, J. Q., *jr.* The Cyprian conqueror; or, The faithless relict. (Modern Language Notes, March, 1908, vol. xxiii., p. 65.)

—— John Heywood's The play of the weather. (*Same,* Dec., 1907, vol. xxii., p. 262.)

—— Robert Greene's What thing is loue? (*Same,* Nov., 1907, vol. xxii., p. 225.)

—— Timon of Athens and the irregularities in the first folio. (Jour. of English and Germanic Philology, Jan., 1908, vol. vii., p. 53.)

—— [Review of] Anthony Brewer's The love-sick king; edited by A. E. H. Swaen. (Modern Language Notes, Dec., 1907, vol. xxii., p. 258.)

Albee, E. [Review of] An outline of the idealistic construction of experience; by J. B. Baillie. (Philosophical Review, Sept., 1907, vol. xvi., p. 538.)

—— *editor.* The philosophical review, 1907–1908.

Atkinson, G. F. Notes on some new species of fungi from the United States. (Annales Mycologici, Jan., 1908, vol. vi., p. 54.)

—— *and* **C. W. Edgerton.** Preliminary note on a new disease of the cultivated vetch. (Science, 20 Sept., 1907, N. S. vol. xxvi., p. 385.)

—— —— Protocoronospora, a new genus of fungi. (Jour. of Mycology, Sept., 1907, vol. xiii., p. 185.)

Austen, W. Congressional bills and reports in libraries. (Papers and Proceedings of the 29th Annual Meeting of the Amer. Library Assoc 1907, p. 153.)

—— Educational value of reference room training for students. (*Same*, p. 274.)

—— University branch libraries. (Library Jour., June, 1908, vol. xxxiii., p. 220.)

—— Using the library. (Cornell Era, April, 1908, vol. xl., p. 314.)

Bailey, E. J. English masterpieces; outlines and questions. No. 1–4. Albany, 1907. 4 nos. 16°.

—— The novels of George Meredith, a study. New York, 1907. 12°. pp. xii. + 226. *Port.*

—— Studies in English masterpieces [10 articles]. (Amer. Education, Sept., 1907–June, 1908, vol. xi.)

Bailey, L. H. Botany; an elementary text for schools. 12th ed. New York, 1907. sm. 8°. pp. xiv. + 431 + (1). *Illus.*

—— The forcing book; a manual of the cultivation of vegetables in glass houses. 7th ed. New York, 1908. 16°. pp. xiii. + 266. *Illus.* (Rural science series.)

—— Garden making; suggestions for the utilizing of home grounds. 12th ed. New York, 1908. 16°. pp. vii. + 417. *Illus.* (Rural science series.)

—— The nursery book; a complete guide to the multiplication of plants. 11th ed. New York, 1907. 16°. pp. x. + 365. *Illus.* (Rural science series.)

—— Practical garden book. New York, 1908. sm. 8°.

—— The principles of fruit-growing. 10th ed. New York, 1908. 16°. pp. xvii. + 516. *Illus.* (Rural science series.)

—— The principles of vegetable gardening. 6th ed. New York, 1908. 16°. pp. x. + 485. *Illus.* (Rural science series.)

—— The pruning book; a monograph of the pruning and training of plants as applied to American conditions. 8th ed. New York, 1907. 16°. pp. ix. + 545. *Illus.* (Rural science series.)

—— Experiment and research. (Cornell Countryman, May, 1908, vol. v., p. 246.)

—— On the training of persons to teach agriculture in the public schools. (Bulletin of the U. S. Education Bureau, 1908, no. 1, pp. 1–53.)

—— *editor*. Cyclopedia of American agriculture. Vol. ii–iii. New York, 1907–1908. 2v. 4°. *Illus.*

—— *editor*. The principles of agriculture; a textbook for schools and rural societies. 12th ed. New York, 1907. 16°. pp. xv. + 300. *Illus*. (Rural science series.)

Baldwin, W. M. The ductus pancreaticus accessorius in man [abstract]. (Amer. Jour. of Anatomy, May, 1907, vol. vii., p. 66.)

Bancroft, W. D. The electrochemistry of light. I.–III. (Jour. of Physical Chemistry, April–June, 1908, vol. xii., pp. 209, 318.)

—— Non-miscibility and the mass law. (*Same*, Jan., 1908, vol. xii., p. 30.)

—— The problem of chemical affinity. (*Same*, Feb., 1908, vol. xii., p. 75.)

—— The relation of electroplating to electrolytic analysis. (*Same*, Jan., 1908, vol. xii., p. 36.)

—— [Papers from the laboratory of W. D. Bancroft, published in the Jour. of Physical Chemistry, 1907–1908, vol. xi.–xii.]

Vol. xi. Action of ammonium persulphate on metals, by J. W. Turrentine, p. 623.

Vol. xii. Electrolytic determination of silver and copper, by H. W. Gillett, p. 26; Electrolytic corrosion of copper-aluminum alloys, by W. S. Rowland, p. 180; Reversed electrolysis, by J. W. Turrentine.

Professor Bancroft has also published 20 book reviews in the Jour. of Physical Chemistry.

Bedell, F., *editor*. The physical review, 1907–1908.

Bennett, C. E. A Latin grammar. Revised ed. Boston, 1908. sm. 8°. pp. x. + 280. (Bennett's Latin series.)

Bentley, I. M. Psychical research.—Psychology. (New international year book, 1907, p. 657.)

—— [Review of] The subconscious; by J. Jastrow. (Philosophical Review, Jan., 1908, vol. xvii., p. 93.)

—— *associate editor*. The psychological index, 1907.

—— *See also* **Titchener, E. B.,** *and* **I. M. Bentley,** *editors*. Cornell University studies in psychology.

Blews, R. R. The German Christian Student Conference. (Intercollegian, Nov., 1907, vol. xxx., p. 33.)

Bradley, J. C. A case of gregarious sleeping habits among aculeate hymenoptera. (Annals of the Entomological Soc. of America, June, 1908, vol. i., p. 127.)

—— Constitution, by-laws, list of honorary fellows, fellows and members of the Entomological Soc. of America and Proceedings of first three meetings. (*Same*, March, 1908, vol. i., p. 4.)

—— Evaniidæ (ensign flies), an archaic group of hymenoptera. (Transactions of the Amer. Entomological Soc., 1908, vol. xxxiv., p. 101.)

—— Minutes of the Boston meeting of the Entomological Society. (Entomological News, Oct., 1907, vol. xviii., p. 368.)

Also in Canadian Entomologist, 1907, vol. xxxix., p. 357; in Psyche, 1907, vol. xv, p. 16; in Science.

—— Notes on two amphipods of the genus corophium. (University of California Publications: Zoology, 1908.)

—— A plea on behalf of the systematic biographer. (Science, 1907.)

Brown, H. B. Algal periodicity in certain ponds and streams. (Bulletin of the Torrey Botanical Club, May, 1908, vol. xxxv., p. 223.)

Browne, A. W., *and* **F. F. Shetterly.** On the oxidation of hydrazine. II. (Jour. of the Amer. Chemical Soc., Jan., 1908, vol. xxx., p. 53.)

Bull, C. S. Case of orbital tumor recurring fourteen years after removal of the eyeball. (Medical Record, 16 May, 1908, vol. lxxiii., p. 836.)

—— The deep intraocular lesions of infantile inherited syphilis and tardy inherited syphilis from the standpoint of pathology, prognosis and treatment. (*Same*, 4 April, 1908, vol. lxxiii., p. 549.)

—— Discussion on the induction of premature labor in the retinitis albuminurica of pregnancy. (*Same*, 11 Jan., 1908, vol. lxxiii., p. 82.)

—— Operations for secondary cataract. (Jour. of the Amer. Medical Assoc., 22 June, 1907, vol. xlviii., p. 2152.)

—— The post-operative history of sixty cases of simple chronic glaucoma. 2d series. (Transactions of the Amer. Ophthalmological Soc., vol. xi.)

Also in Ophthalmic Record, 1907, vol. xvi., p. 278.

—— Some of the rarer lesions of the eye due to chronic lithæmia. (Annals of Ophthalmology, 1907, pt. 3.)

—— Two cases of injury to the eye by pieces of steel, with location of the foreign bodies by the skiagraphic method. (Medical Record, 18 April, 1908, vol. lxxiii., p. 668.)

Burnett, S. H. The clinical pathology of the blood of domesticated animals. Ithaca, 1908. 8°. pp. xi. + 153.

—— The control of an outbreak of anthrax. (Amer. Veterinary Review, May, 1908, vol. xxxiii., p. 136.)

Burr, G. L. The place of geography in the teaching of history. (N. E. History Teachers' Assoc., 22d meeting, Oct. 19, 1907, p. 1.)

—— [Review of] Acta Aragonensia; herausgegeben von H. Finke. (Amer. Historical Review, April, 1908, vol. xiii., p. 566.)

—— [Review of] Geschichte der Päpste seit dem Ausgang des Mittelalters; von L. Pastor. 4er Bd. 2e Abt. (*Same*, p. 635.)

—— [Review of] A history of the inquisition of Spain, Vol. iv,; by H. C. Lea.—History of sacerdotal celibacy in the Christian church [3d ed. revised]; by H. C. Lea. (*Same*, Jan., 1908, vol. xiii., 337.)

Buxton, B. H. Absorption from the peritoneal cavity. Pt. 8. Absorption of typhoid bacilli in the immune animal. (Jour. of Medical Research, May, 1907, vol. xvi., p. 251.)

—— *and* **M. Tracy.** *Same.* Pt. 9. Preparation of the peritoneal cavity by injections of nuclein and oil. (*Same*, Oct., 1907, vol. xvii., p. 1.)

The last two articles are reprinted in Publications of Cornell University Medical College: Studies from the Department of Pathology, 1907, vol. vii.

—— *See also* **Teague, O.,** *and* **B. H. Buxton.** Die Agglutination in physikalischer Hinsicht. IV–V.—Die gegenseitige Ausflockung von Kolloiden.

Camac, C. N. B. Diabetes and the alkaline treatment. (Medical Record, 25 April, 1908, vol. lxxiii., p. 710.)

—— The heart in infectious diseases: adult life. (*Same*, 29 June, 1907, vol. lxxi., p. 1090.)

—— Some of the recent important contributions to our knowledge of heart disease. (University of Pennsylvania, Medical Bulletin, May, 1907, vol. iii., p. 30.)

A clinic delivered to 3d and 4th year medical students of the University of Pennsylvania, Feb. 23, 1907.

—— *editor*. Counsels and ideals from the writings of W. Osler. 3d and 4th impression. London, 1907. sm. 8°. pp. 14+277.

Carver, W. B. [Review of] Mehrdimensionale Geometrie, II. Teil, Die Polytope; von P. H. Schoute. (Bull. of the Amer. Mathematical Soc., May, 1908, vol. xiv., p. 393.)

Catterall, R. C. H. [Review of] An advanced history of Great Britain from the earliest times to the death of Queen Victoria; by T. F. Tout. (Amer. Historical Review, Oct., 1907, vol. xiii., p. 193.)

—— [Review of] Die polnischen Provinzen Russlands unter Katharina II. in den Jahren 1772–1782; von U. L. Lehtonen. (*Same*, April, 1908, vol. xiii., p. 575.)

—— [Review of] A short history of social life in England; by M. B. Synge. (*Same*, Oct., 1907, vol. xiii., p. 194.)

Chamot, E. M. Arsenic, Poisoning by. (Appendix to the Reference handbook of the medical sciences, 1908, p. 366.)

—— Operating results of the water purification plant at Ithaca, N. Y. (Engineering Record, 23 May, 1908, vol. lvii., p. 672.)

—— [Review of] Lehrbuch der gerichtlichen Chemie; von Baumert, Dennstedt and Voigtländer. (Jour. of the Amer. Chemical Soc., June, 1908, vol. xxx., p. 1042.)

—— [Review of] Poisons, their effects and detection; by A. W. Blyth. (*Same*, Jan., 1908, vol. xxx., p. 159.)

Professor Chamot has also published many reviews in the Abstract Jour. of the Amer. Chemical Soc.

Church, I. P. Mechanics of engineering, comprising statics and kinetics of solids, the mechanics of the materials of construction or strength and elasticity of beams, columns, shafts, arches, etc., and the principles of hydraulics and pneumatics, with applications; for use in technical schools. Revised ed., partly rewritten. New York, 1908. 8°. pp. xxvi.+854. 730 *figs*.

Coleman, W., *joint editor*. An index of treatment, by seventy-two writers; edited by R. Hutchison, H. S. Collier, revised and edited to conform with American practice by W. Coleman. New York, 1908. 8°. pp. 903. *Illus*.

Comstock, A. B., *editor*. Home nature-study course, 1907–1908.

Conner, L. A. The clinical study of heart cases. (Amer. Jour. of the Medical Sciences, June, 1908, vol. cxxxv., p. 790.)

—— The occurrence of epileptiform attacks in diabetes mellitus. (Medical Record, 17 May, 1908, vol. lxxiii., p. 801.)

—— On certain acoustic limitations of the stethoscope and their clinical importance. (Transactions of the Assoc. of Amer. Physicians, 1907, vol. xxii., p. 113.)

Also in N. Y. Medical Jour., 13 July, 1907.

Cooper, L. Theories of style, with especial reference to prose composition. New York, 1907. sm. 8°. pp. xxiii. + 460.

—— The College of Arts and Sciences. (Cornell Era, Dec., 1907, vol. xl., p. 110.)

—— Dante's humor. (N. Y. Evening Post, 10 Jan., 1908.)

—— Dryden and Shelley on Milton. (Modern Language Notes, March, 1908, vol. xxiii., p. 93.)

—— Literature for engineers. (Sibley Jour., May, 1908, vol. xxii., p. 286.)

—— Notes on Byron and Shelley. (Modern Language Notes, April, 1908, vol. xxiii., p. 118.)

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